GEM®

Global Electric Motorcars® by POLARIS®








2011 Owner's Manual

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NOTE: This manual is subject to change. For the latest version please visit www.gemcar.com, and click on About GEM, Current GEM Owners, and Owners Manuals.

⚠ WARNING

Any modifications or alterations to this vehicle could seriously affect its road worthiness and safety and may lead to an accident resulting in serious injury or death.

⚠ WARNING

You can be badly injured working on an electric vehicle. Take your vehicle to your dealer or call Global Electric Motorcars Customer Service at 866-764-0616 for your service needs.

Introduction

ABOUT THIS MANUAL

Thank you for purchasing your GEM car by Polaris Industries Inc. Your vehicle is designed to operate exclusively on battery power. It is an emission-free vehicle. The ideal application for a battery-powered neighborhood electric vehicle (NEV) occurs when the daily driving pattern is predictable and the distance is relatively short.

Polaris' objective includes customer safety and product satisfaction. This Owner's Manual is designed to acquaint you with the proper and safe operation of your GEM car. Please take the time to read and understand the manual before operating your vehicle. Maintenance schedules and general care instructions are included in the Operation and Maintenance section.

This manual is applicable to the following GEM line of vehicles: GEM e2 (two passenger), GEM e4 (four passenger), GEM eS (two passenger short-back), GEM eL (two passenger long-back), GEM eL XD (two passenger extra duty long-back), and the GEM e6® (six passenger).

If questions arise after reading the manual, you may contact us at 866.764.0616. Please have your Vehicle Identification Number (VIN) and date of purchase information available.

NOTE: All information and specifications in this Owner's Manual are current at the time of printing. However, due to GEM policy of continuous product improvement, we reserve the right to make changes, at any time, without written notice or obligation.

INTRODUCTION TO THE SAFE OWNERSHIP OF GEM LINE OF VEHICLES

GEM battery-electric vehicles are different from vehicles you might be accustomed to owning. Special precautions should be followed when owning and operating a GEM car. Please read this Manual and pay particular attention to the cautions and warnings in this Manual, as well as those placed on the vehicle in various locations.

In general, GEM battery-electric vehicles are designed to meet U.S. Federal Government safety requirements for a special class of vehicle known as "Low Speed Vehicles." By this very name, and implicit in these safety requirements, these vehicles are intended only for use at low speed, up to 25 mph, and on public roads (governed by individual state laws) where the speed limits are correspondingly low.

Introduction

Specific to GEM car models, the following safe habits should always be followed:

• GEM battery-electric vehicles are open vehicles. For this reason, safety belts should always be worn by all occupants to prevent being thrown from the vehicle during operation. If your GEM car is equipped with doors, these were designed and are intended only to keep wind and water out of the vehicle and should not be relied upon to keep occupants in the vehicle or to protect them in case of collision.

• GEM battery-electric vehicles are not designed to meet any collision or roll-over requirements. Therefore, you should always drive your GEM car in a safe manner while being alert to potential dangerous situations around you. As with all motor vehicles, never drink alcohol and attempt to drive a GEM car. Operate a GEM car only on public or private roads where the speed limits are appropriate for low speed vehicles (individual state laws vary, so check with your DMV) and the traffic is light. You should never operate a GEM car so that you are an obstacle and become an annoyance for faster moving traffic.

• GEM battery-electric vehicles are designed to be recharged from a standard 120 VAC-15 amp electrical outlet that is ground-fault protected. Charging from a circuit of lesser capacity and/or using a cord from the outlet to the GEM car that is not sufficient in wire gauge could create a fire hazard. Please consult this Manual for the proper extension cord gauge which depends on its length.

• The voltage in a GEM car battery pack (the battery pack is what you charge

and provides the “fuel” to the GEM cars electric drive system) is sufficient to cause death by electrocution. For this reason, GEM car owners should NEVER attempt to do any maintenance or repair work on their GEM cars electric drive system, including the battery pack, unless they have had special training. The one exception is inspection and refilling, if necessary, of the water in flooded type batteries that can be ordered with the GEM line of vehicles.

In this Owner’s Manual, the above safe ownership and operation habits will be pointed out to you as the different aspects of owning and operating a GEM car are explained. Please read, understand and abide by them for years of safe operation and enjoyment of your GEM car.

WARNINGS, CAUTIONS, NOTICES AND NOTES

The following signal words and symbols appear throughout this manual and on your vehicle. Your safety is involved when these words and symbols are used. Become familiar with their meanings before reading the manual.

⚠ The safety alert symbol indicates a potential personal injury hazard.

WARNING indicates a hazardous situation which, if not avoided, may result in death or serious injury.

CAUTION indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE indicates a situation that may result in property damage.

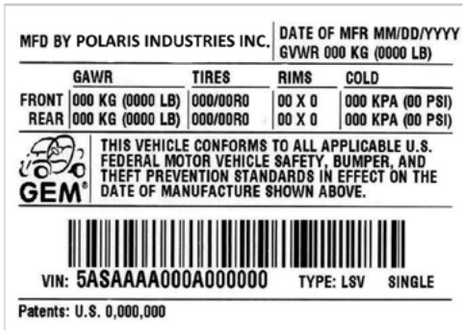
NOTE indicates information to help clarify procedures.

Vehicle Identification and Specifications

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VEHICLE INFORMATION



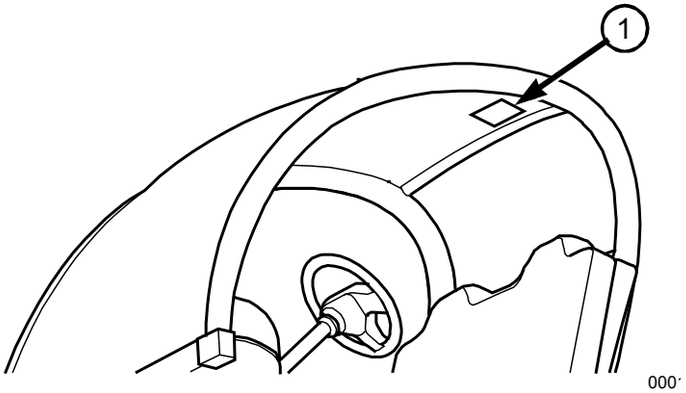


Figure 1 - VIN/Certification Label Location

For all model vehicles, the Vehicle Identification Number (VIN) can be found on the VIN/Certification Label, located on the left rear section of the roof panel. The VIN indicates the model year, the model type and the serial number of the vehicle.

NOTE: Be sure to record the Vehicle Identification Number in the space provided.

Vehicle Identification Number (VIN):

__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

Key # _____ (Stamped on Key)

Optional Rear Accessory # _____ (Stamped on Key)

Date purchased: _____ /_____ /_____

GENERAL SPECIFICATIONS

GEM e2 Specifications

Motor:	GE Heavy Duty 5 hp, shunt DC electric motor
Drive System:	Single speed front wheel drive trans axle
Tire:	2-ply street rated tires 12” 165/70R-12
Battery Pack:	Six 12-volt lead acid batteries of specific make and model number
Accessory Power Supply:	12 volt, 30 amp DC/DC converter
Onboard Charger:	120 volt 15 amp 60 Hz AC input. 72-100 volt 12 amp DC output
Vehicle Width:	55”
Vehicle Length:	99”
Vehicle Height:	70”
Wheelbase:	72”
Turning Circle:	24 feet*
Curb Weight:	1120 lbs.
GVWR:	1850 lbs.
Payload Capacity:	730 lbs.** (options + passengers + cargo)

*The turning circle is the diameter of a circle required to make a U-turn maneuver
**These weight limits are approximate. The GVWR must never be exceeded. GVWR is the actual weight of the vehicle plus the weight of the entire payload of passengers and cargo.

GENERAL SPECIFICATIONS

GEM e4 Specifications

Motor:	GE Heavy Duty 5 hp, shunt DC electric motor
Drive System:	Single speed front wheel drive trans axle
Tire:	2-ply street rated tires 12” 165/70R-12
Battery Pack:	Six 12-volt lead acid batteries of specific make and model number
Accessory Power Supply:	12 volt, 30 amp DC/DC converter
Onboard Charger:	120 volt 15 amp 60 Hz AC input. 72-100 volt 12 amp DC output
Vehicle Width:	55”
Vehicle Length:	128”
Vehicle Height:	70”
Wheelbase:	102”
Turning Circle:	32 feet*
Curb Weight:	1280 lbs.
GVWR:	2200 lbs.
Payload Capacity:	920 lbs.** (options + passengers + cargo)

*The turning circle is the diameter of a circle required to make a U-turn maneuver
**These weight limits are approximate. The GVWR must never be exceeded. GVWR is the actual weight of the vehicle plus the weight of the entire payload of passengers and cargo.

GENERAL SPECIFICATIONS

GEM eS Specifications

Motor:	GE Heavy Duty 5 hp, shunt DC electric motor
Drive System:	Single speed front wheel drive trans axle
Tire:	2-ply street rated tires 12” 165/70R-12
Battery Pack:	Six 12-volt lead acid batteries of specific make and model number
Accessory Power Supply:	12 volt, 30 amp DC/DC converter
Onboard Charger:	120 volt 15 amp 60 Hz AC input. 72-100 volt 12 amp DC output
Vehicle Width:	55”
Vehicle Length:	108”
Vehicle Height:	70”
Wheelbase:	72”
Turning Circle:	25 feet*
Curb Weight:	1160 lbs.
GVWR:	1850 lbs.
Payload Capacity:	690 lbs.** (options + passengers + cargo)

*The turning circle is the diameter of a circle required to make a U-turn maneuver
**These weight limits are approximate. The GVWR must never be exceeded. GVWR is the actual weight of the vehicle plus the weight of the entire payload of passengers and cargo.

GENERAL SPECIFICATIONS

GEM eL Specifications

Motor:	GE Heavy Duty 5 hp, shunt DC electric motor
Drive System:	Single speed front wheel drive trans axle
Tire:	2-ply street rated tires 12” 165/70R-12
Battery Pack:	Six 12-volt lead acid batteries of specific make and model number
Accessory Power Supply:	12 volt, 30 amp DC/DC converter
Onboard Charger:	120 volt 15 amp 60 Hz AC input. 72-100 volt 12 amp DC output
Vehicle Width:	55”
Vehicle Length:	144”
Vehicle Height:	70”
Wheelbase:	114”
Turning Circle:	35 feet*
Curb Weight:	1230 lbs.
GVWR:	2300 lbs.
Payload Capacity:	770 lbs.** (options + passengers + cargo)

*The turning circle is the diameter of a circle required to make a U-turn maneuver
**These weight limits are approximate. The GVWR must never be exceeded. GVWR is the actual weight of the vehicle plus the weight of the entire payload of passengers and cargo.

GENERAL SPECIFICATIONS

GEM eL XD Specifications

Motor:	GE Heavy Duty 7 hp vented, shunt DC electric motor
Drive System:	Single speed front wheel drive trans axle
Tire:	2-ply street rated tires TR13” P185/70R13 86H
Battery Pack:	Nine 8-volt lead acid batteries of specific make and model number
Accessory Power Supply:	12 volt, 30 amp DC/DC converter
Onboard Charger:	120 volt 15 amp 60 Hz AC input. 72-100 volt 12 amp DC output
Vehicle Width:	55”
Vehicle Length:	144”
Vehicle Height:	70”
Wheelbase:	114”
Turning Circle:	35 feet*
Curb Weight:	1570 lbs.
GVWR:	3000 lbs.
Payload Capacity:	1430 lbs.** (options + passengers + cargo)

*The turning circle is the diameter of a circle required to make a U-turn maneuver
**These weight limits are approximate. The GVWR must never be exceeded. GVWR is the actual weight of the vehicle plus the weight of the entire payload of passengers and cargo.

GENERAL SPECIFICATIONS

GEM e6® Specifications

Motor:	GE Heavy Duty 7 hp vented, shunt DC electric motor
Drive System:	Single speed front wheel drive trans axle
Tire:	2-ply street rated tires TR13” P185/70R13 86H
Battery Pack:	Six 12-volt lead acid batteries of specific make and model number (e6 w/S option) Nine 8-volt lead acid gel batteries of specific make and model number
Accessory Power Supply:	12 volt, 30 amp DC/DC converter
Onboard Charger:	120 volt 15 amp 60 Hz AC input. 72-100 volt 12 amp DC output
Vehicle Width:	55”
Vehicle Length:	162”
Vehicle Height:	70”
Wheelbase:	133”
Turning Circle:	39 feet*
Curb Weight:	1560 lbs. 1860 lbs w/S option
GVWR:	3000 lbs.
Payload Capacity:	1440 lbs.** (options + passengers + cargo)

*The turning circle is the diameter of a circle required to make a U-turn maneuver
**These weight limits are approximate. The GVWR must never be exceeded. GVWR is the actual weight of the vehicle plus the weight of the entire payload of passengers and cargo.

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DRIVING AND ALCOHOL

Your ability to drive your GEM car can be seriously impaired with blood alcohol levels far below the legal minimum. If you are drinking alcohol, don't drive. Ride with a designated non-drinking driver, call a cab, or use public transportation.

⚠ WARNING

Driving after drinking alcohol can lead to an accident resulting in death or serious injury. Your perceptions are less sharp, your reflexes are slower, and your judgment is impaired when you have been drinking. Never drink alcohol and drive.

SAFETY INFORMATION

⚠ WARNING

Your vehicle is battery powered. If handled improperly, batteries can be dangerous. Follow the precautions provided on pages 18-19 during charging operations to avoid personal injury or damage to electrical components in the vehicle.

- Read the Owner's Manual before operating this vehicle.
- Charge vehicle in a well-ventilated area only.
- Keep children away from the vehicle during charging.
- Batteries can emit explosive hydrogen gases when charging. Keep sparks and flames away from the battery area of the vehicle. Tools, wires and metal objects can cause sparks when shorted across the battery connections. Follow all instructions carefully when dealing with batteries.
- The batteries in the GEM car are either 12 volt or 8 volt lead acid batteries. They are connected in a pack configuration to produce **HIGH VOLTAGE DC** (72 to 100 volts). These batteries are either Flooded electrolyte type or Gel electrolyte type and are selected specifically to optimize the operation and performance of your vehicle. **Never use or substitute any battery other than the original factory approved batteries.**

- Electrolyte can leak from damaged or defective flooded batteries. Avoid contact with skin, eyes or clothing.
- Batteries contain acid, which can cause severe burns. If battery fluid comes in contact with your skin, flush the affected areas with water for at least 15 minutes and then seek medical assistance.
- Internal ingested: Get medical assistance as soon as possible.
- Contact with eyes: Flush with water and get medical assistance as soon as possible. While you are being driven to get medical assistance, continue to rinse your eyes by using a sponge or soft cloth saturated with water.

CAUTION

When checking the electrolyte level in flooded batteries, be careful to never touch the battery terminals.

⚠ WARNING

Battery posts, terminals, and related accessories contain lead and lead compounds. Always wash hands after handling the battery.

⚠ WARNING

Improper handling of high voltage wiring, batteries, or control systems could result in serious or fatal injury by electric shock. Only qualified technicians should repair or access high voltage wiring, battery packs, and associated systems.

ROLL OVER WARNING

Do not attempt sharp turns or abrupt maneuvers or other unsafe driving actions that can cause loss of vehicle control and possible roll over. Failure to operate this vehicle safely may result in an accident, roll over, and serious injury or death. Because of its construction, your vehicle offers less protection than other types of motor vehicles in the event of an accident.

⚠ WARNING

Carrying loads on the roof could damage the roof and affect vehicle handling causing an accident leading to death or serious injury.

Never carry loads on the roof of the vehicle.

Understanding the Standard Features of Your Vehicle

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INSTRUMENT POD

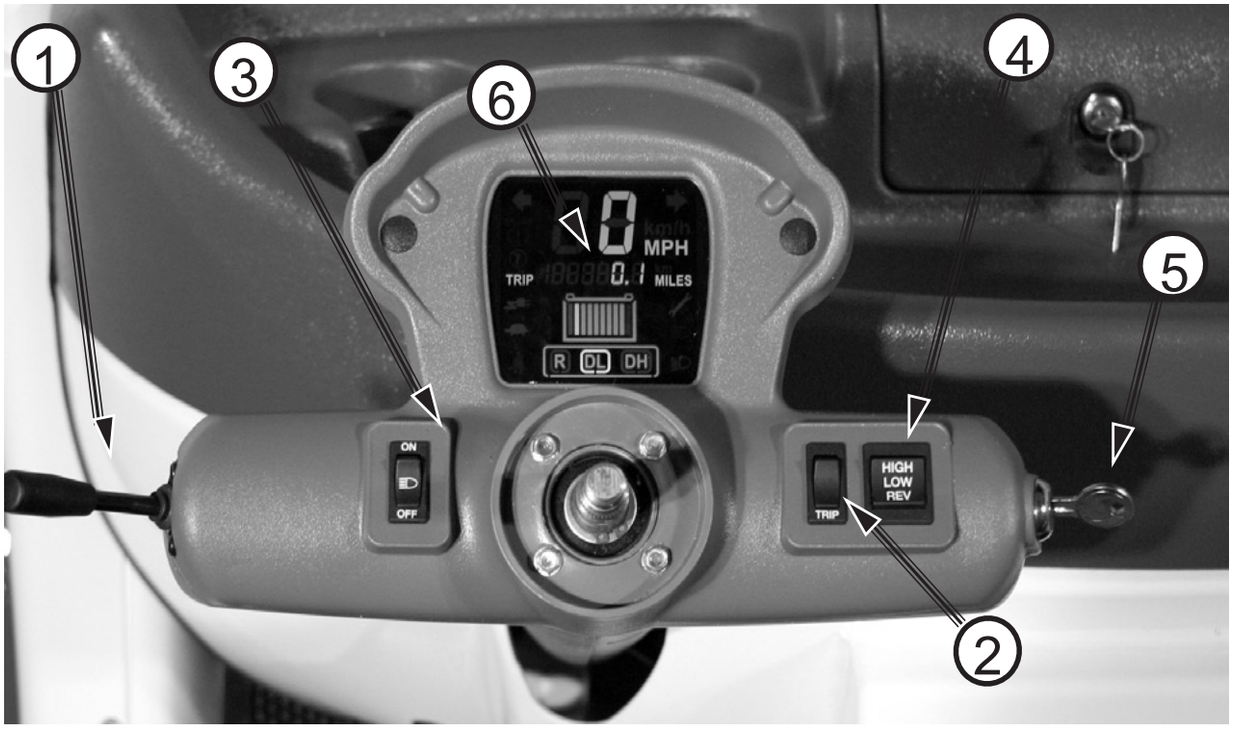


Figure 2 - Instrument Pod

1. Turn Signal/Windshield Wiper & Washer/Horn Lever
2. Trip/Odometer Switch
3. Headlight Switch
4. Forward/Reverse Switch
5. Key Switch
6. LCD Display

NOTE: Further explanation of these vehicle features are found on the next nine pages.

*Left Hand Drive Model Vehicle shown.

TURN SIGNAL/WINDSHIELD WIPER & WASHER /HORN LEVER

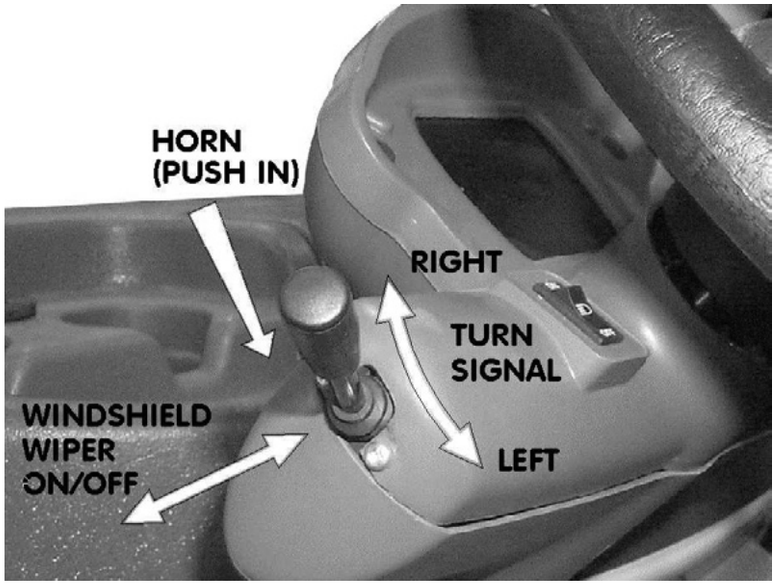


Figure 3 - Turn Signal Lever

The turn signal lever is multi-functional, controlling the turn signals, horn, wiper, and washer, if so equipped. Figure 3 illustrates how to activate the different functions.

TURN SIGNAL

For a left turn, move the lever down until it clicks. For a right turn, move the lever up until it clicks.

*Same for both Left Hand Drive and Right Hand Drive vehicles.

NOTE: The turn signal lever is not self-canceling. After completing the turn, return the lever to the center (off) position. An audible tone alert will sound after the turn signal has been on for 45 seconds.

HORN

Press the turn signal lever inward toward the instrument pod to activate the horn.

WINDSHIELD WIPER

Push the turn signal lever away from the steering wheel to turn on the windshield wiper. Pull the turn signal lever towards the steering wheel to turn off.

WINDSHIELD WASHER

Push the lever again for a momentary wash of the windshield.

TRIP METER/ODOMETER SWITCH/E-METER

The trip switch has three functions: (1) toggling between the odometer and the trip meter; (2) reset the trip meter; (3) change the function of the speedometer and odometer from miles-per-hour (MPH) to kilometers-per-hour (km/h) and miles to kilometers; (4) toggle between odometer/trip meter and e-meter, displaying accumulated power consumed from grid, show in kilowatt hours (KW/HR).

USING THE TRIP/ODOMETER SWITCH/E-METER

1. Pressing the trip switch for less than 2 seconds will toggle between the odometer and trip meter modes on the display.
2. Pressing the trip switch for 3-9 seconds, while the display is in the trip mode, will reset the trip meter to zero. (TRIP must be lit on the display- see page 27).
3. Pressing the trip switch for 10-12 seconds, while the display is in the odometer mode will change the display functions from MPH to km/h and miles to kilometers.

HEADLIGHT SWITCH

Headlight switch turns the headlights and taillights on and off.

FORWARD/REVERSE SWITCH

Drive High

With the key turned on and ‘High’ selected, pushing down on the accelerator pedal will move the vehicle in a forward direction with the speed range of 0-25 MPH. This mode refers to ‘APPROVED TRAFFIC’ routes based on Low Speed Vehicle (LSV) regulations for your area.

Drive Low

With the key turned on and ‘Low’ selected, pushing down on the accelerator pedal will move the vehicle in a forward direction with the speed range of 0-15 mph. When ‘Low’ is selected, the acceleration and speed of the GEM is limited.

Reverse

With the key switch on and ‘Reverse’ selected, pushing down on the accelerator pedal will move the vehicle in reverse. The top speed in the reverse direction is limited for safety.

NOTE: Your GEM car is equipped with a reverse warning device that sounds when the key is on and the vehicle direction switch is in the reverse position.

NOTICE
Always bring the vehicle to a complete stop before changing the position of the forward/reverse switch.

KEY SWITCH

When the key is in the 'ON' position (turned clockwise), the display will light up and all accessories may be turned on. When the key is in the 'OFF' position, the car will not accelerate but accessories and lights will remain on for approximately 30 seconds. Remove the key from the ignition when vehicle is not in use to prevent unauthorized use.

⚠ WARNING
Never turn the key to the "OFF" position while the vehicle is in motion. This could lead to loss of speed control and loss of control of the vehicle. This can cause an accident and may result in death or serious injury.

NOTICE
Do not leave the key in the 'ON' position when not in use. Doing so will discharge the batteries.

ZERO SPEED DETECT

If the vehicle is moving while the key switch is on and accelerator pedal up (not depressed), the electric motor will resist vehicle motion. This feature will not work unless the main contactor is engaged.

LCD DISPLAY

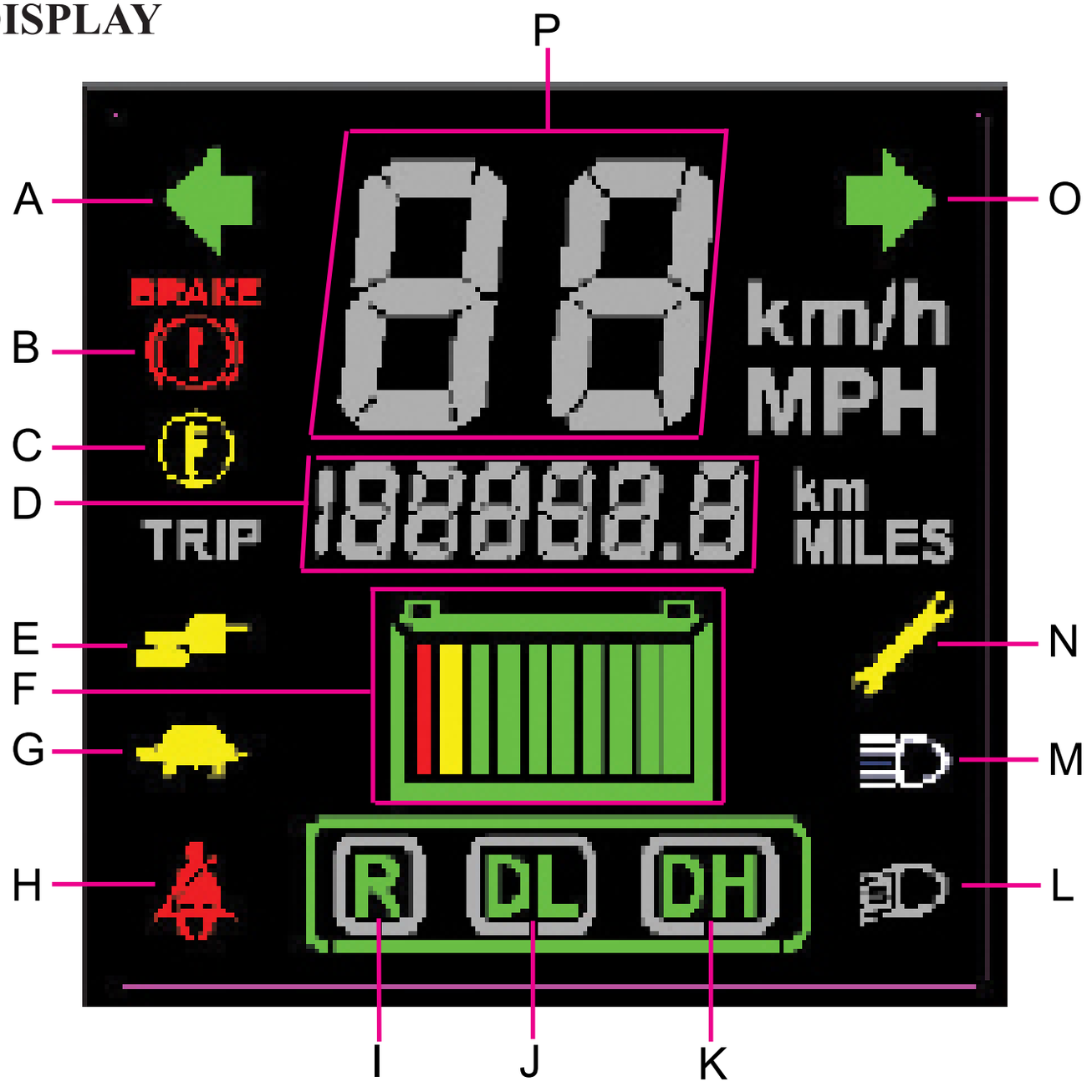


Figure 4 - LCD Display

LCD Display	Indicators
A	Left Turn Indicator
B	Low Fluid Level/Parking Brake On Indicator
C	High Motor Temperature Warning Indicator
D	Odometer/Trip Meter
E	Charger Connected Indicator
F	State of Charge Indicator/Battery Discharge Indicator (BDI)
G	Current Limiting Mode Indicator
H	Safety Belt Warning Indicator
I	Reverse Indicator
J	Drive-Low Setting
K	Drive-High Setting
L	Headlight Indicator-Low Beam
M	Headlight Indicator-High Beam
N	Service Required Indicator
O	Right Turn Indicator
P	Speedometer/Error Code Display

*Vehicle will not move when the parking brake is engaged and parking brake lamp is lit.

NOTE: These indicators are defined on the next several pages.

TURN INDICATORS

The turn signal arrows will flash corresponding to the direction of the turn signal lever.

HIGH TEMPERATURE MOTOR OR MOTOR CONTROLLER

If the motor temperature icon is lit or an error code 41 is displayed in the speedometer/ error code display, your motor or motor controller may be overheating. Climbing steep grades while hauling heavy loads may overheat the motor or controller and shorten component life.

BRAKE FAILURE WARNING

If the brake warning icon is lit, there may be a problem with your braking system. It could be an indication of the following:

- Low brake fluid
- Air in the brake system
- Park brake is engaged

⚠ WARNING

Worn brake hoses can burst and cause brake failure. You could have an accident and suffer death or serious injury. If you see any signs of cracking, scuffing, or worn spots, have the brake hoses replaced immediately.

⚠ WARNING

Riding the brakes can lead to brake failure and possibly an accident resulting in death or serious injury. Driving with your foot resting or riding on the brake pedal can result in abnormally high brake temperatures, excessive lining wear, possible brake damage, and reduced driving range. You wouldn't have your full braking capacity in an emergency.

NOTICE
If the high motor temperature warning indicator is lit, or code 41 is displayed, pull over and park the vehicle in a cool location as soon as possible. Wait until motor temperature is reduced and the high motor temperature icon turns off before continuing to drive. If this condition persists, contact your service provider.

TRIP METER/ODOMETER/E-METER

The odometer indicates the total distance the vehicle has been driven. This is useful in keeping a record for maintenance. The odometer can be displayed in kilometers or miles. To change from miles to kilometers or to change from odometer to trip meter, see the Odometer Switch/Trip Meter section on page 24. The trip meter is useful for keeping track of specific distances traveled.

SPEEDOMETER/ERROR CODE

The speedometer indicates driving speed in either miles-per-hour (MPH) or kilometers-per hour (km/h). To switch between MPH and km/h, see the Trip Meter/Odometer Switch section on page 24. If the Service icon is lit, an error code will be displayed at the speedometer location. See page 74 for information regarding error codes.

CHARGER CONNECTED

The charger connected icon and state of charge/Battery Discharge Indicator gauge turns on approximately 8-10 seconds after the extension cord is plugged in. After charging is 100% complete, the charger connected icon will be the only thing lit and the bar graph will not be illuminated. A green light on the charger itself will also illuminate when the car is 100% charged. To know if the charging process is complete, all ten bars on the state of charge indicator should be illuminated when the car is turned on. If the charger cord is plugged in and neither the charger connected icon nor the state of charge/battery discharge indicators are not illuminated, the charger may not be charging. If this occurs, make sure the main disconnect switch is in the 'ON' position. More information on the charger and charging of the batteries is discussed on pages 76-81.

STATE OF CHARGE/BATTERY DISCHARGE INDICATOR

The state of charge indicator shows how much capacity remains in the battery pack. There are 10 bars: 1 red, 1 yellow, and 8 green. After a full charge all the bars should be illuminated when the car is turned on. The far right green bar will be the first to turn off once the battery pack voltage begins to drop. The percent of charge corresponding to each bar is shown below.

Bar	Color	% Of Full Charge
1	Red (Far Left)	Less Than 10
2	Yellow	10-20
3	Green	20-30
4	Green	30-40
5	Green	40-50
6	Green	50-60
7	Green	60-70
8	Green	70-80
9	Green	80-90
10	Green (Far Right)	90-100

CURRENT LIMITING MODE

The current limiting mode is designed to protect the batteries and motor. If the current limiting mode icon is illuminated, it is an indication of one of the following issues:

Battery Pack Under-Voltage

Battery pack under-voltage would coincide with a low charge reading on the state of charge gauge. If you continue to drive, the acceleration and power will begin to decrease. The controller will eventually shut the vehicle down before allowing battery damage to occur. If the state of charge is low and the current limiting icon is illuminated, pull the vehicle over to a safe location and charge the vehicle.

SAFETY BELT

The safety belt icon reminds you to fasten your safety belt. The icon remains on for 45 seconds.

⚠ WARNING

- Riding in the cargo area could result in death or serious injury.
- Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts.
- Be sure everyone in your vehicle is in a seat and using a seat belt properly.

DRIVE HIGH/LOW/REVERSE

The drive High/Low/Reverse corresponds to the position of the Forward/Reverse switch. More information regarding this switch can be found on pages 22 and 25.

SERVICE

If the Service icon is illuminated, an error code will be displayed at the speedometer location. See page 74 for a description and explanation of common error codes.

WINDSHIELD WIPER

NOTE: The windshield wiper circuit is protected by a 10 amp fuse located in the fuse block behind the fuse access panel. If the wiper is not working check the fuse and if blown, replace it with the same type and rating.

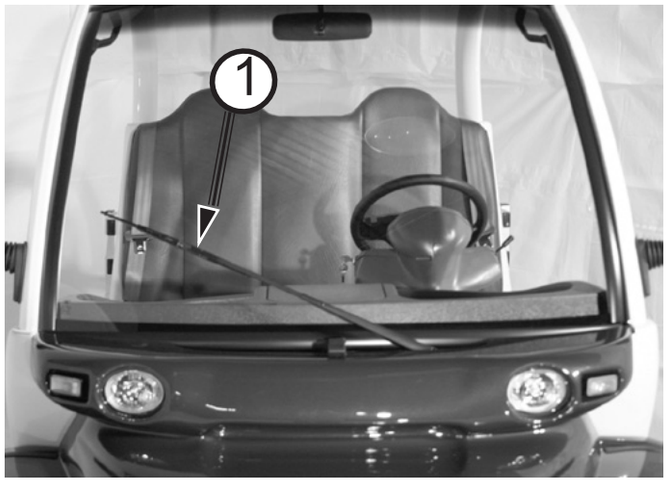


Figure 5- Windshield Wiper

1. Wiper Blade and Arm

CAUTION
A damaged or worn wiper blade may reduce vision and impair you from seeing well enough to drive safely. A worn wiper blade could damage windshield glass. If your blade becomes damaged or worn, replace it.

NOTICE
When replacing a blown fuse, it is important to use only a fuse having the correct amperage rating. The use of a fuse with a rating other than indicated may result in an electrical system overload. If a properly rated fuse continues to blow, it indicates a problem in the circuit that must be corrected.

FOOT PEDALS

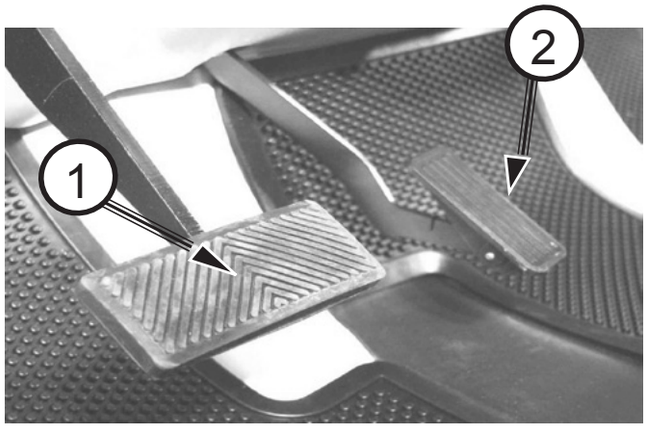


Figure 6 - Foot Pedals

1. Brake Pedal
2. Accelerator Pedal

BRAKE PEDAL

The brake pedal (Figure 6) is located on the floor to the left of the accelerator pedal. To slow or stop the vehicle, firmly press the brake pedal.

ACCELERATOR PEDAL

The accelerator pedal (Figure 6), is located on the floor, close to the center of the vehicle and is used to control your speed. Pressing down on the pedal will increase speed.

⚠ WARNING

Always accelerate slowly to prevent possible injury to yourself or others.

*Left Hand Drive Model shown. (Same for Right Hand Drive Models).

PARKING BRAKE



Figure 7 - Parking Brake (GEM e2, GEM eS, GEM eL, GEM eL XD)

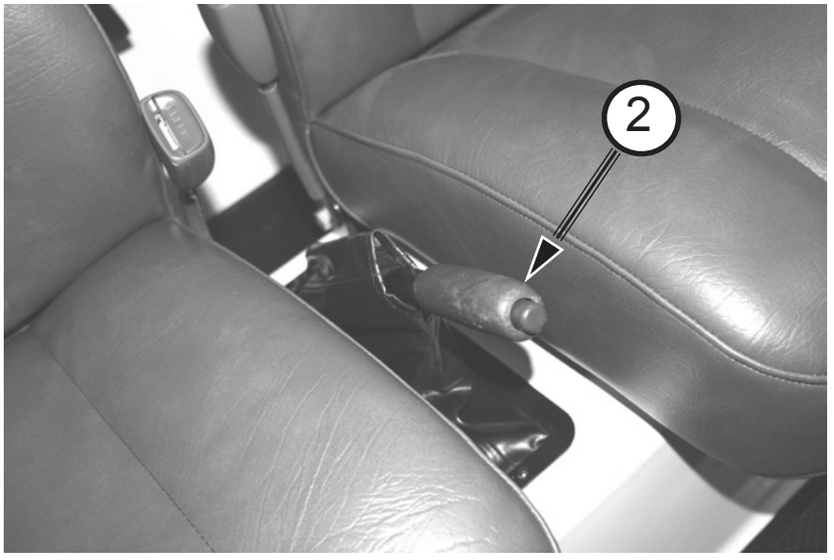


Figure 8 - Parking Brake (GEM e4, GEM e6®)

1. Parking Brake (models e2, eS, eL, eL XD) Figure 7
2. Parking Brake (models e4, e6®) Figure 8

The parking brake is located to the lower right of the driver seat. To engage the parking brake, lift up on the handle. To release, press the button on the end of the brake handle and lower it.

NOTE: The parking brake is adjustable and should be checked periodically by a trained service technician. Review the vehicle maintenance schedule on page 104.

⚠ WARNING

- Always fully apply the parking break when leaving your vehicle, or it will roll and may cause death or serious injury.
- Leaving children in a vehicle unattended is dangerous for a number of reasons. A child or other person could be injured. Children should be warned not to touch the parking brake or the gear selector lever. Always remove key from ignition when done with vehicle. A child could operate controls, or move the vehicle.
- Be sure the parking brake is fully disengaged before driving. Failure to do so can lead to brake problems due to excessive heating of the rear brakes.

MAIN DISCONNECT SWITCH AND FUSE PANEL



Figure 9 - Main Disconnect Switch

The main disconnect switch (MDS) (Figure 9), is located inside the fuse access panel on the lower dash. The switch is clearly labeled ‘ON’ and ‘OFF’. The switch is intended to provide an easy way to disconnect all power to the vehicle during long-term storage. After disconnect is turned off, some power may remain in the system until all capacitors have discharged.

NOTE: The main disconnect switch must be turned ‘ON’ for operation and charging. The GEM car is equipped with a battery charger that will monitor the state of charge of the batteries and will initiate a charge cycle whenever the batteries fall below a predetermined level. If the car will be left unused for an extended period of time, leave the MDS on and the car plugged in. The car will maintain a charge on its own for up to 24 weeks.

NOTICE

When replacing a blown fuse, it is important to use only a fuse having the correct amperage rating. The use of a fuse with a rating other than indicated may result in an electrical system overload. If a properly rated fuse continues to blow, it indicates a problem in the circuit that must be corrected.

NOTICE

Do not turn off disconnect switch while the vehicle is in motion or undergoing recharge unless in the case of an emergency where the vehicle operation or charging requires interruption.

⚠ WARNING

The main disconnect switch will disable the vehicle by disconnecting the battery pack from the motor. It does not disable the battery pack. HIGH VOLTAGE will be present at the battery terminals.

HIGH BATTERY VOLTAGE IS ALWAYS PRESENT. DO NOT TOUCH THE BATTERY TERMINALS.

CONVENIENCE ITEMS

SEAT ADJUSTMENT - 4 & 6 PASSENGER ONLY

The front seats on the GEM e4 and GEM e6® models are equipped with manual seat adjustments. The seat adjustment handle is directly under the front of the seat. Move the handle toward the driver's side door, to the left, and move the seat to the desired position. Using body pressure, move forward and rearward on the seat to assure the seat adjusters are latched securely.

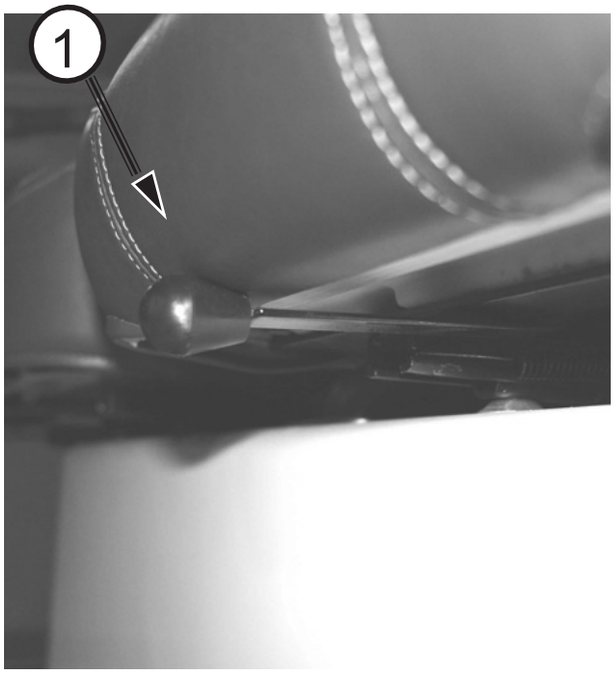


Figure 12 - Seat Adjustment Handle

1. Seat Adjustment Handle

SAFETY BELTS



Figure 10 - Safety Belts (Bench Seat)



Figure 11 - Safety Belts (Bucket Seat)

1. Belt
2. Latch
3. Buckle

The GEM car is equipped with safety belts for both driver and passengers.

Research has shown that safety belts save lives. Safety belts can reduce the seriousness of injuries in a single vehicle accident. Some of the worst injuries happen when people are thrown from the vehicle. Safety belts provide protection, and they reduce the risk of injury caused by striking the inside of the vehicle. Everyone needs to buckle up all the time, even for short trips.

⚠ WARNING

- Always wear your safety belt correctly. Safety belts are designed to go around the large bones of your body. These are the strongest parts of your body and can take the forces of a collision best.
- Wearing your safety belt incorrectly could increase your risk of death or serious injury in an accident. You could suffer internal injuries, or even slide out of part of the belt. Use the instructions in this manual to insure you and your passengers are wearing the safety belts properly.
- Two people should never be belted into a single safety belt. People belted together can crash into one another in an accident, causing injury. Never use a lap/shoulder belt for more than one person, no matter the size of the person.

WARNING

In a collision, you and your passengers can suffer death or serious injury if you are not properly buckled up. You can strike the interior of your vehicle or other passengers, or you can be thrown out of the vehicle. Always be sure you and others in your vehicle are buckled up properly.

PROPER USE OF YOUR LAP AND SHOULDER BELT

1. Enter the vehicle and sit back.
2. The safety belt buckle is located above the back of the seat. Grasp the buckle and pull out the belt. Slide the buckle up the webbing as far as necessary to make the belt go around your lap.
3. When the safety belt is long enough to fit, insert the buckle into the latch until you hear a click. Make sure the button on the latch faces upward or outward so that you are able to unbuckle your safety belt quickly.
4. Position the lap belt across your thighs, and below your abdomen. To remove slack in the lap belt portion of the belt, pull up on the shoulder belt. To loosen the lap belt if it is too tight, tilt the buckle and pull on the lap belt. A snug belt reduces the risk of sliding under the belt in a collision.
5. Position the shoulder belt on your chest so that it is comfortable

and not resting on your neck. The retractor will withdraw any slack in the belt.

6. To release the belt, push the red button on the latch. If necessary, slide the buckle down the webbing to allow it to retract fully.

WARNING

A frayed or torn belt could rip apart in a collision and lead to death or serious injury. Inspect the belt system periodically, checking for cuts, frays, or loose parts. Damaged parts must be replaced immediately. Do not modify or disassemble the system. Seat belt assemblies must be replaced after a collision if they have been damaged (bent retractor, torn webbing, etc.).

⚠ WARNING

Maximum occupancy is limited to six people (including the driver) in the GEM e6®, four people in the GEM e4 and two people in the GEM e2, GEM eS, GEM eL, and GEM eL XD. Overloading can result in an accident which could cause death or serious injury.

⚠ WARNING

- A belt that is buckled into the wrong latch will not function or protect you properly. The lap portion of the safety belt could ride too high on your body, possibly resulting in death or serious injury. Always buckle your safety belt into the latch nearest you.
- A safety belt that is too loose will not function properly. In a sudden stop, you could jerk too far forward, increasing the possibility of injury. Wear your safety belt snugly.
- A belt that is positioned under your arm is very dangerous. Your body could strike the inside surfaces of the vehicle in a collision, increasing the possibility of injury. A belt worn under the arm can cause internal injuries. Wear the belt over your shoulder.
- A shoulder belt placed behind you will not protect you from injury during a collision. The lap and shoulder belts are to be used together.

SEAT BELTS AND PREGNANT WOMEN

We recommend that pregnant women use seat belts throughout their pregnancy. Keeping the mother safe is the best way to keep the baby safe.

Pregnant women should wear the lap part of the belt across the thighs and as snug across the hips as possible. Keep the belt low so that it does not come across the abdomen. That way the strong bones of the hips will take the force if there is a collision.

SEAT BELT EXTENDER

If a seat belt is too short, even when fully extended and when the adjustable upper shoulder belt anchorage (if equipped) is in its lowest position, your dealer can provide you with a seat belt extender. This extender should be used only if the existing belt is not long enough. When it is not required, remove the extender and store it.

⚠ WARNING

Using a seat belt extender when not needed can increase the risk of death or serious injury in an accident. Only use when the seat belt is not long enough when it is worn low and snug, and in the recommended seating positions. Remove and stow the seat belt extender when not needed.

CHILD RESTRAINT

Everyone in your vehicle needs to be buckled up at all times - babies and children, too. Every state in the United States and all Canadian provinces require that small children ride in proper restraint systems. This is the law, and you can be prosecuted for ignoring it.

Children 12 years and under should ride properly buckled up in a rear seat, if available. According to crash statistics, children are safer when properly restrained in the rear seats, rather than in the front.

There are different size and types of restraints for children from newborn size to the child almost large enough for an adult safety belt. Always check the child seat owner's manual to ensure you have the correct seat for your child. Use the restraint that is correct for your child.

⚠ WARNING

In a collision, an unrestrained child, even a tiny baby, can become a missile inside the vehicle. The force required to hold an infant could become so great that you could not hold the child, no matter how strong you are. The child and others could be seriously injured or killed. Any child riding in your vehicle should be in a proper restraint for the child's size.

INFANTS AND CHILD RESTRAINTS

Safety experts recommend that children ride rearward-facing in the vehicle until they are at least one year old and weigh at least 20 lbs (9 kg). Two types of child restraints can be used rearward-facing: infant carriers and “convertible” child seats.

The infant carrier is only used rearward-facing in the vehicle. It is recommended for children who weigh up to about 20 lbs (9 kg). “Convertible” child seats often have a higher weight limit in the rearward-facing direction than infant carriers do, so they can be used rearward-facing by children who weigh more than 20 lbs (9 kg) but are less than one year old. Both types of child restraints are held in the vehicle by the lap/shoulder belt. This vehicle is not equipped with a “latch” child restraint anchorage system. The lap/shoulder belt must be used to secure both types of child restraints into the vehicle.

⚠ WARNING

Improper installation can lead to failure of an infant or child restraint. It could become loose in a collision. The child could be seriously injured or killed. Follow the manufacturer’s directions exactly when installing an infant or child restraint.

TIPS FOR GETTING THE MOST OUT OF YOUR CHILD RESTRAINT

- Before buying any restraint system, make sure that it has a label certifying that it meets all applicable Safety Standards. The manufacturer also recommends that you try a child restraint in the vehicle seats where you will use it before you buy it.
- The restraint must be appropriate for your child's weight and height. Check the label on the restraint for weight and height limits.
- All passenger seat belts are equipped with cinching latch plates.
- Seat belts are designed to keep the lap portion tight around the child restraint so that it is not necessary to use a locking clip. If the seat belt has a cinching latch plate, pulling up on the shoulder portion of the lap/shoulder belt will tighten the belt (the cinching latch plate will keep the belt tight, however, any seat belt system will loosen with time, so check the belt occasionally and pull it tight if necessary).
- In the rear seat, you may have trouble tightening the lap/shoulder belt on the child restraint because the buckle or latch plate is too close to the belt path opening on the restraint. Disconnect the latch plate from the buckle and twist the short buckle-end belt several times to shorten it. Insert the latch plate into the buckle with the release button facing out.

⚠ WARNING

An improperly installed child restraint may fail to secure the child and result in serious injury or death. Always follow the instructions that come with the restraint.

- If the belt still cannot be tightened, or if pulling and pushing on the restraint loosens the belt, disconnect the latch plate from the buckle, turn the buckle around, and insert the latch plate into the buckle again. If you still cannot make the child restraint secure, try a different seating position.
- Buckle the child into the restraint exactly as the manufacturer's instructions tell you.
- When your child restraint is not in use, secure it in the vehicle with the seat belt or remove it from the vehicle. Do not leave it loose in the vehicle. In a sudden stop or collision, it could strike the occupants or seat backs and cause serious personal injury.

NOTE: For additional information refer to www.seatcheck.org or call 1-866-SEATCHECK.

OTHER CHILDREN AND CHILD RESTRAINTS

Children who weigh more than 20 lbs (9 kg) and who are older than one year can ride forward-facing in the vehicle. Forward-facing child seats and convertible child seats used in the forward-facing direction, are for children who weigh 20 to 40 lbs (9 to 18 kg), and who are older than one year. These child seats are also held in the vehicle by the lap/shoulder belt.

The belt-positioning booster seat is for children weighing more than 40 lbs (18 kg), but who are still too small to fit the vehicle's seat belts properly. If the child cannot sit with knees bent over the vehicle's seat cushion while the child's back is against the seat back, they should use a belt-positioning booster seat. The child and belt-positioning booster seat are held in the vehicle by the lap/shoulder belt.

CHILDREN TOO LARGE FOR BOOSTER SEATS

Children who are large enough to wear the shoulder belt comfortably, and whose legs are long enough to bend over the front of the seat when their back is against the seat back, should use the lap/shoulder belt in a rear seat.

- Make sure that the child is upright in the seat.
- The lap portion should be low on the hips and as snug as possible.
- Check belt fit periodically. A child's squirming or slouching can move the belt out of position.
- If the shoulder belt contacts the face or neck, move the child closer to the center of the vehicle. Never allow a child to put the shoulder belt under an arm or behind their back.

Not all child restraint systems will be installed as we have described here. Again, carefully follow the instructions that come with the child restraint system.

TRANSPORTING PETS

Pets should be restrained in the rear seat in a pet harness, or in a pet carrier that is secured by seat belts.

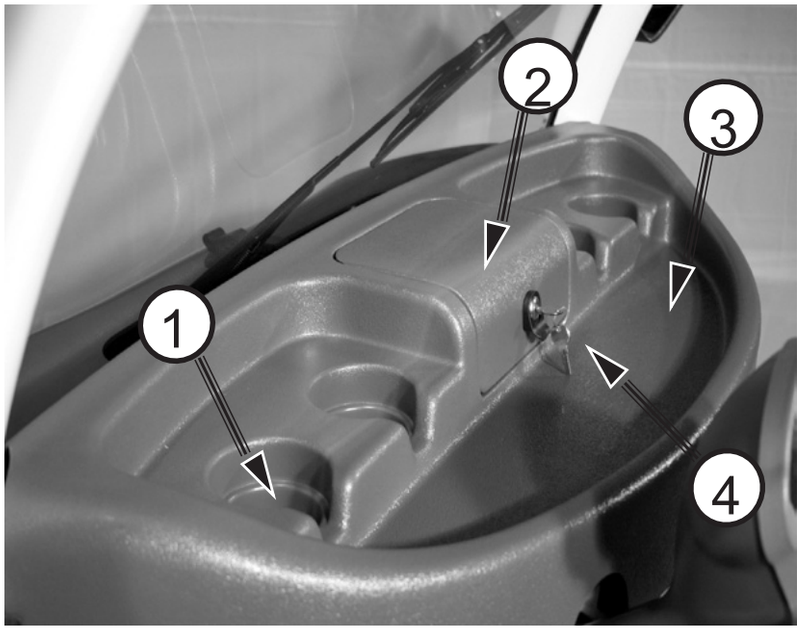


Figure 13 - Upper Dash

1. Cup Holder
2. Glove Box Door
3. Package Tray
4. Glove Box Lock

The glove box (Figure 13), is located on the top center of the upper dash and is equipped with a lock to protect against theft or damage. The upper dash also contains a package tray and four cup holder locations. Your ignition key will lock and unlock the glove box. Turn 1/4 turn counter clockwise to unlock.

Electrical wiring, circuit boards and components are located under and behind the upper and lower dash.

NOTICE
Liquids can damage electrical components and the circuit board. Handle liquids with care. Do not spray water directly into the upper or lower dash.

REAR ACCESSORY OPTIONS

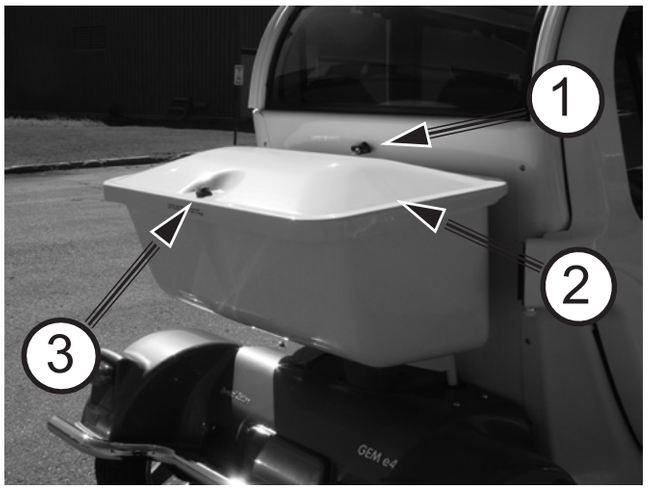


Figure 15 - TrunkBack™



Figure 16 - LinksBack™



Figure 17 - Clip-In StakeBack™

1. Release Handle - Your ignition key opens this lock, always lock after changing optional accessory backs.
2. Cover
3. Cover Lock - There is a separate key for this lock.

Rear accessories options are available from your dealer and they are interchangeable.

NOTICE
Use only GEM approved rear accessories. Others may cause damage to the locking system or vehicle, and will void warranty.

CAUTION
DO NOT OVERLOAD When releasing the back latch, make sure the safety strap is secure prior to turning the release handle. The rear accessories can fall suddenly and cause injury or damage to the vehicle if the safety strap is not used.

As the picture shows on page 56, the release handle is located on the back panel, just below the rear window opening ledge.

To remove or install rear accessories:

1. Remove contents of rear accessory.
2. Steady it to prevent it from falling.
3. Unlock the release handle with ignition key.
4. Rotate the release handle clockwise to release.
5. Remove the safety strap.
6. Lift off the GEM car.
7. Position the new rear accessory onto the brackets and refasten the safety strap.
8. Push forward to engage lock. Test to make sure it is secure. This is a two stage locking system. If not secure, repeat procedure.
9. Lock the release handle with ignition key.

NOTICE

Keep the back latch in a locked position when operating or transporting the vehicle. The rear accessory could fall and cause injury if the safety strap is not used.

⚠ WARNING

The capacity of the back is not intended for any type of passenger use. Doing so could result in death or serious injury.

HAZARD WARNING FLASHERS

Your vehicle's hazard warning flasher is an emergency warning system. When you activate it, all front and rear directional signals will flash intermittently. Use it when your vehicle is disabled on or near the road. It warns other drivers to steer clear of you and your vehicle. This is an emergency warning system, not to be used when the vehicle is in motion.

To activate the warning flashers, press the button on the lower switch bank (below climate controls). To turn the warning flashers off, press the button again.



HEATED SEATS

Heated seats provide comfort and warmth on cold days and can help soothe sore muscles and backs. For 2-passenger vehicles, the front driver and passenger seats are heated. For 4-passenger and 6-passenger vehicles both front and second row seats are heated. The front heated seat switches are located on the lower dash. The rear heated seat switches are located directly below the rear of the front seat backrests. After keying on the vehicle, you can choose seat heating levels of High, Medium, Low, or Off. Pressing the switch once selects High. Each successive switch press decreases the heat level to Medium, Low, and Off respectively. The heated seat system has an additional safety feature that automatically shuts off the seats 1 hour after turning them on.



1 - heated seat switches.

⚠ WARNING

Persons who are unable to feel pain to the skin because of advanced age, chronic illness, diabetes, spinal cord injury, medication, alcohol use, exhaustion, or other physical conditions must exercise care when using the seat heater. It may cause burns even at low temperatures, especially if used for long periods of time.

Do not place anything on the seat that insulates against heat, such as a blanket or cushion. This may cause the seat heater to overheat.

STEREO SYSTEM

The optional stereo system is mounted in an overhead console for your convenience and features speakers, FM radio, a CD player and has MP3 capabilities. Refer to your stereo system's User's Manual for detailed operating instructions.



PUBLIC ADDRESS SYSTEM

The optional Public Address (PA) System features a heavy-duty microphone, speaker, and a four-tone siren. Refer to your PA system user's manual for detailed operating instructions.



CHROME FRONT & REAR BUMPERS

The chrome bumpers are for appearance only and will protect the body panels from minor dents and scratches in some parking maneuver situations. They will not provide any protection to the vehicle in front or rear collisions.





RUGGED BUMPERS

The rugged bumpers will protect the body panels for minor dents and scratches in some parking maneuver situations. They will not provide any protection to the vehicle in front or rear collisions.



NOTICE
The bumpers are not designed for pushing or towing purposes. Damage to the vehicle may result.





GRAB HANDLE PACKAGE

Grab handles can be added at each seat position to assist you in entering and exiting your GEM car. The interior grab handles are not intended to retain passengers in the vehicle. Seat belt must be worn at all times.



VALET BAR

This removable valet bar mounts above the rear seat giving you the ability to transport clothing on hangers inside the vehicle.



NOTICE
Do not overload. Hanging loads must never exceed 100 lbs.

SOFT DOOR OPERATION

From either inside or outside the vehicle, locate the zipper at the bottom front or mid rear of each door. Unzip the door to open. The door can be held in the open position using the straps and snaps located on the pillars/door supports.



ENCLOSED CARGO CARRIER OPERATION

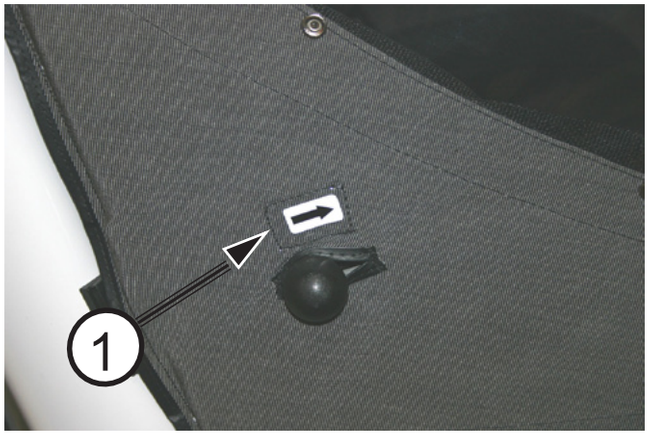
To open, insert key and turn lock, pull out and twist T-handle. To close, reverse the process.



FRAMED CANVAS DOOR OPERATION

To open the doors from outside the vehicle, locate the knob and slide in the direction of the arrows (1). To open doors from inside the vehicle, locate the mid-center nylon strap (2) and pull towards the front of the vehicle.

To open windows, locate the zipper and unzip to desired position. The window can be stored in the open position by securing with the nylon straps and snaps.





⚠ WARNING

The doors, hard or soft, do not offer structural protection in the event of an accident and do not change the open body characteristics of the vehicle. The doors only provide protection from the weather. Always use seat belts. Failure to use standard seat belts puts the driver and passengers at greater risk of serious injury or death in an accident.

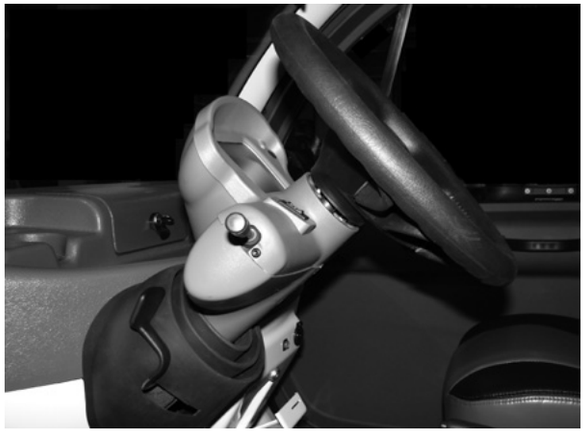
STEERING COLUMN LOCK OPERATION

To lock, turn the key forward (clockwise) while turning the steering wheel until you feel the lock/key set into place, then remove the key. To unlock, insert the key and turn it backwards (counterclockwise).



ADJUSTABLE TILT STEERING COLUMN OPERATION

To operate pull the lever to the left of the column backward toward the driver to release the tilt column and push it forward away from the driver to the dashes to lock the tilt in the desired location.



*Left Hand Drive Model Shown.

DOME LIGHT OPERATION

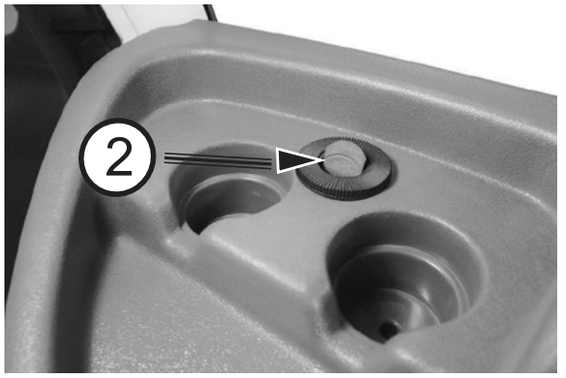
The dome light is turned on or off by pressing the button (1) located on the side of the light. The dome light is powered by 4-AA batteries. To replace the batteries, remove the light cover and install new batteries per the illustration inside the battery compartment.



HEATER/DEFOGGER OPERATION

The heater/defogger unit can be used to provide vehicle passenger heat, as well as to assist in defogging the windshield. To operate, move the switch (1) located on the dash of the vehicle to the “On” position. Adjust the airflow to the windshield as needed using the deflectors (2) located on the top of the dash.

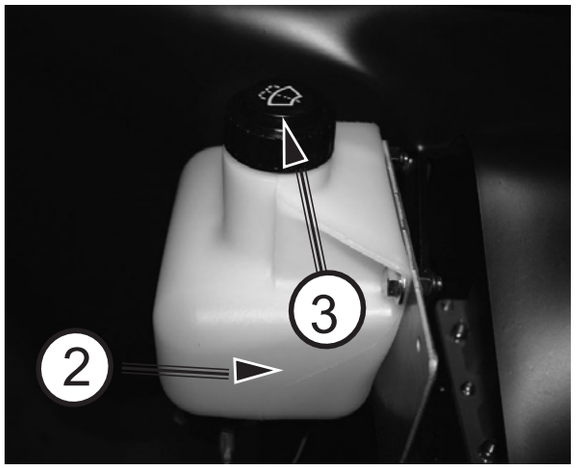




WINDSHIELD WASHER OPERATION

The windshield washer can be used with the windshield wipers to remove dirt and debris from the vehicles windshield. To operate the washer, first turn on the windshield wipers, then press in on the turn signal lever (1). The washer reservoir (2), located in the motor compartment should be checked for fluid levels at regular intervals. Fill the reservoir with windshield antifreeze (not radiator antifreeze) rated for -25°F (-31°C). Operate the system for a few seconds to flush out the residual water. To fill, remove the cap (3) and fill with windshield washer fluid.





WARNING

Commercial windshield washer solvents are flammable. They could ignite and result in serious injury or death. Care must be exercised when filling or working around the washer solution.

HIGH/LOW BEAM HEADLIGHT OPERATION

The high/low beam headlights (1) are operated by moving the headlight switch (2) located on the steering column to the low beam, down position, or the high beam, up position. To turn off the lights, move the switch to the “Off” center position.





ACCESSORY OUTLET



Figure 17 - Accessory Outlet

1. Accessory Outlet

The optional accessory outlet (Figure 17) is located on the lower dash, to the right of the fuse access panel. This outlet will accept a standard automotive 12-volt accessory outlet and is intended for moderately powered accessories, such as a cellular phone. It will not operate large current items, such as cigarette lighters.

NOTICE
Damage to electrical components may occur from improper use.

ACCESSORY OUTLET CONTINUED

NOTICE
• Do not plug in devices requiring power exceeding 25 watts. Damage to the vehicle electrical system may occur or an accessory fuse may blow. • The fuse for the power outlet plug is located in the fuse block under the access panel in the center of the lower dashboard. Always use fuses with the same type and rating. • Power outlets are designed for accessory plugs only. Do not hang any type of accessory or accessory bracket from the plug.

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- What to do in Emergencies 74
- Basic Maintenance 76
- Care and Cleaning 101
- Vehicle Maintenance Schedule 104

BASIC OPERATION

Basic procedure of how to operate the vehicle.

1. Unplug the electrical charge cord from the front of the vehicle.
2. Fasten safety belts and adjust mirrors as necessary.
3. Turn key ‘On’.
4. Depress brake pedal and move direction switch to desired position.
5. Release parking brake.
6. Release brake pedal.
7. Press accelerator pedal and go.

WHAT TO DO IN EMERGENCIES

Error Code Summary and Explanation

Error codes are used in the control system to indicate conditions that prevent the vehicle from operating. All error codes are accompanied by the service icon. The chart shown below summarizes the most frequent error codes and remedies.







Error Code	Condition	Remedy
06	Pedal depressed and no direction is selected.	Release pedal and insure direction switch is locked into a position.
11	Pedal is depressed when key is turned on.	Release accelerator pedal and restart car.
15	Low voltage on battery pack.	Need to charge batteries before operating.
16	High voltage on battery pack.	Turn lights on for several seconds, then turn key switch off, and back on again.

NOTE: If any other codes are present, contact your GEM car Dealer or Customer Service at 1.866.764.0616 for assistance.

TRANSPORTING YOUR VEHICLE

The best way to transport your vehicle is in an enclosed trailer. If it is necessary to transport your vehicle on an open trailer, follow these guidelines:

1. Never transport your vehicle while the vehicle is facing rearward on the trailer.
2. With the vehicle facing forward, pull the trailer at speeds of 65 MPH or less.
4. If your vehicle is equipped with hard doors, put all windows down.
5. Secure any items that could be affected by airflow through the vehicle.
6. Do not secure across any plastic body or floor panel component of the vehicle. Use tie down points on the frame identified with an “X” as shown on page 97.

NOTE: GEM is not responsible for damage incurred or lost items due to vehicle towing.

NOTICE
TOWING THE VEHICLE IS NOT RECOMMENDED. This vehicle is not designed for dolly towing. Any vehicle failures resulting from dolly towing will void warranty.

BASIC MAINTENANCE

⚠ WARNING
The main disconnect switch should be turned off before any vehicle maintenance is started. Failure to do so could result in death or serious injury.

Battery Charging

The Main Disconnect Switch must be ‘On’ before charging the batteries.

The type of batteries used in the vehicle will perform better when kept fully charged. Therefore, whenever possible, recharge the batteries.

The GEM car has a battery control and recharge system specially designed for electric vehicle usage. Depending on the model and options of your GEM, it may be equipped with Flooded-wet cell or valve regulated Gel type lead acid batteries. There are also two possible battery placement configurations. The standard configuration consists of 6, 12-volt batteries with 2 of the batteries located under the battery access cover on the bed of the GEM eS, GEM eL, GEM eL XD, and GEM e6® models (see page 84), or under the maintenance plate on the rear spat of the GEM e2, GEM e4, and GEM e6® models, with the other 4 batteries located under the bench seat on all models. The optional configuration, available on the GEM e6® and the GEM eL XD models, consists of nine, 8-volt batteries. On the GEM eL XD model, 6 of these batteries are located under the bench seat, with the remaining 3 located under the access panel located on the bed. On the GEM e6® model, 3 of the batteries are located under the middle seat pedestal, with access through the panel located on the front of that pedestal. 3 more batteries are located under the rear bench seat, with the final 3 batteries located under the access panel on either the rear bed or rear spat. The charging system is designed to maximize the battery pack life while recharging the pack in the shortest time with available household current (ground fault protected 110-volt, 15-amp, A/C outlet). The following guidelines will insure that you receive the maximum battery life and performance out of your GEM car. Because of the high power draw at low states of battery charge, the AC outlet should be dedicated only to recharging your GEM battery-electric vehicle.

- New batteries will not perform to their fullest capacity until they have been discharged and recharged 20 to 30 times. Batteries should be fully charged before the first use.
- When recharging, it is preferable to have the battery pack at room temperature. Do not charge at temperatures of 110°F or higher.
- Batteries should be charged after each use, if possible.
- In the first few years of life, your batteries should provide a range of up to 30 miles at 72°F. At 32°F, your range may be reduced to 12-15 miles. This is a normal characteristic of electric vehicles. Your actual range my be affected by road conditions, terrain, weather, and driving habits.

⚠ WARNING

- Always wear safety glasses or approved eye protection when servicing the vehicle. Wear a full-face shield and gloves when working with or around batteries and electrical connectors.
- Always use insulated tools when working with or near batteries.

Failure to follow these instructions could result in death or serious injury.

⚠ WARNING

- Battery fluid is a corrosive acid solution and can burn or blind you.
- Do not allow battery fluid to contact eyes, skin or clothing. If acid splashes in eyes or on the skin, flush the area immediately with large quantities of water.
- Battery gas is flammable and explosive. Keep flame or sparks away from the battery or any other booster source.
- Do not allow battery cable clamps to touch each other.
- Battery posts, terminals and related accessories contain lead and lead compounds. Wash your hands after handling.

Failure to follow these instructions could result in death or serious injury.

CAUTION

It is essential, when replacing the cables on the batteries that the positive cable is attached to the positive post (+) and the negative cable is attached to the negative post (-). Battery posts are identified on the battery case as positive (+) and negative (-). Cable clamps should be tight on the terminal posts and free of corrosion.

NOTICE

If the batteries are replaced, make sure they are the exact type and make originally supplied with the vehicle. Using incorrect batteries can result in damage to the vehicle's electrical system.

BATTERY CHARGER

The battery pack should be charged whenever convenient and no matter the state of charge. If no green bars are lit, the battery pack should be put on charge as soon as possible. A full recharge cycle (state of charge showing only 1 red bar) can take 8 hours or more for standard battery pack, and up to 14 hours for heavy duty battery pack. Most recharge cycles will be shorter.

NOTICE

- Fully charge batteries before storing.
- In hot climates, battery self-discharge will increase.
- In cold climates, batteries could freeze if not properly charged.
- If the vehicle will not be used for 10 or more days, unplug the car, turn the main disconnect switch 'OFF' and arrange for monthly charging, OR leave the car plugged in and the main disconnect switch 'ON', (only up to 24 weeks).

Batteries can be permanently damaged (and the warranty voided) if allowed to remain 30 days or more with low charge.

BATTERY CHARGE RECEPTACLE

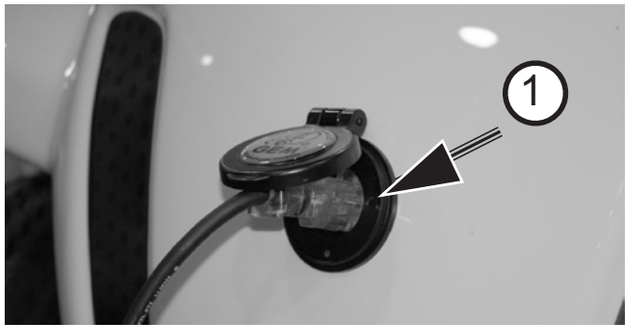


Figure 18 - Charging Receptacle

Charging Receptacle

The Battery Charge Receptacle (Figure 18), is located on the hood. It accepts a standard, 3 wire, grounded, extension cord and should not exceed the following:

- 12 gauge wire with three wire grounded; 50 feet or less in length.
- 14 gauge wire with three wire grounded; 25 feet or less in length.

NOTE: Never use less than 14 gauge cord or cord longer than 50 feet to charge your GEM car. Using a GFI type cord on a GFCI protected outlet is not recommended and may not allow the charger to operate efficiently.

⚠ WARNING

Use the correct gauge extension cord as defined above. An incorrect gauge extension cord could result in a fire, heat damage or charger failure and result in death or serious injury.

Insert the proper grounded extension cord into the battery charger receptacle (Figure 18), and then plug into a 110-volt A/C, 15 amp breaker outlet. A GFI (Ground Fault Interrupt) receptacle is recommended. An optional GEM GFI cord set is available from your GEM Dealer or Customer Service if you do not have a GFI receptacle at your regular recharge site.

Periodically check extension cords for cut, abrasive or loose connections. Never leave extension cords in standing water. Do not drive over extension cords.

BATTERY CARE

Your GEM car is equipped with either six 12-volt Gel batteries, six 12-volt Flooded batteries, or nine 8-volt Gel batteries. All types are shown in Figure 19.



Figure 19 - Gel and Flooded Batteries

NOTICE
Each vehicle is programmed at the factory for a particular battery type. Switching battery types should only be done by a GEM factory-trained technician.

Flooded Battery Fill Well

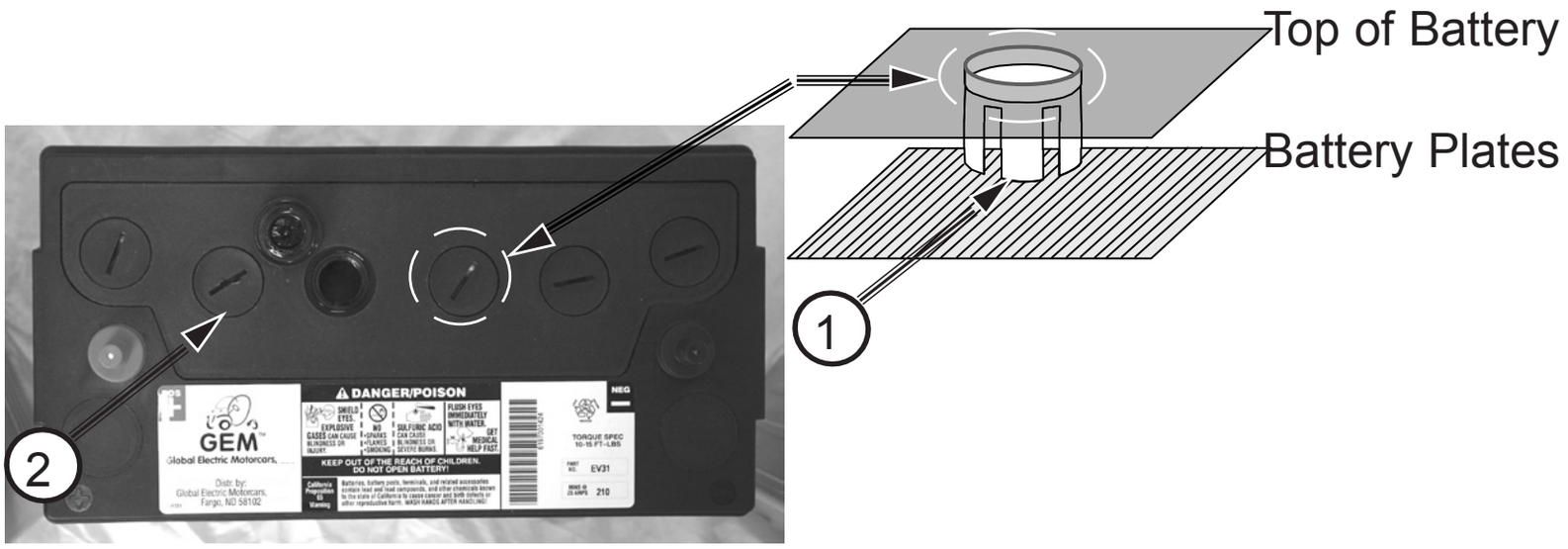


Figure 20 - Fill Wells of flooded battery

1. Bottom of Fill Well
2. Fill Cap

Each battery contains 6 screw out fill caps to expose the fluid wells. Figure 20 shows one cap removed to show the fill wells.

*See Page 86 for filling instructions

NOTE: Gel batteries do not have fill wells, as they are maintenance free.

Battery Location for the GEM e4, GEM eS, GEM eL, and GEM eL XD Models

Four of the batteries are located under the bench seat and two of the six batteries are located under the battery access cover in the center of the bed. The battery access cover, as shown in Figure 21, can be removed by unscrewing four fasteners.

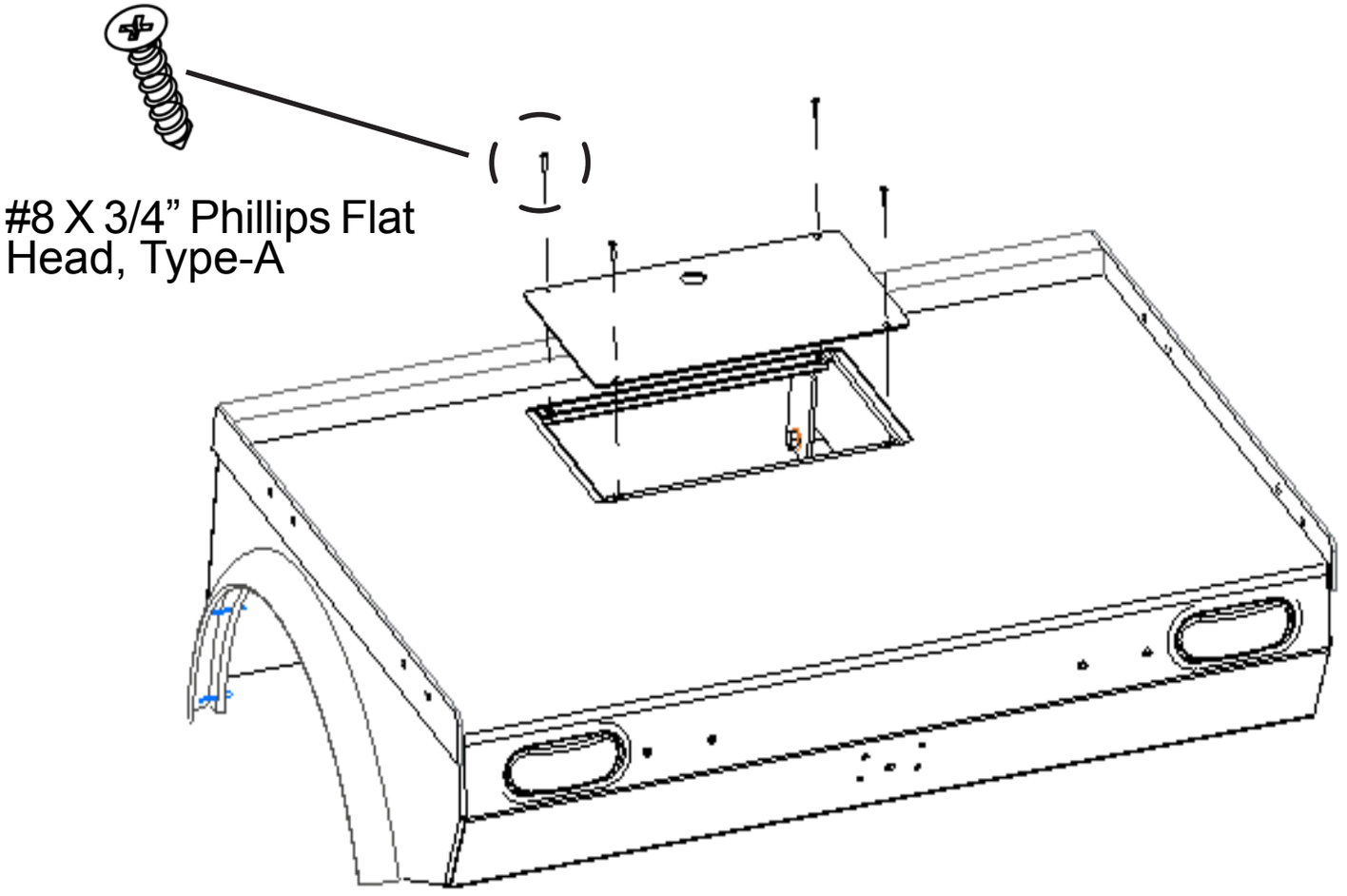


Figure 21 - Short Back Bed Battery Access

Battery Location for the GEM e2, GEM e4, and GEM e6® Models (Standard)

On the GEM e2 and GEM e4 models four batteries are under the seat and two of the six batteries are located under the maintenance plate located in the center of the rear spat. It may be necessary to remove any rear accessory options before removing the cover.



Figure 22 - Spat Battery Access

To keep batteries in good working condition, follow the maintenance schedule listed below and discussed on pages 86-88.

Monthly Battery Maintenance
1. Check water level (flooded only)
2. Wash tops and terminals of batteries and allow to dry
3. Check terminal connections
4. Check battery hold down bar to insure batteries are tightly secured
5. Check for worn insulation or frayed wires

NOTE: For more information or if a problem exists, contact Global Electric Motorcars Customer Service at 866.764.0616.

BATTERY MAINTENANCE

⚠ WARNING - HIGH VOLTAGE

The battery pack is at a high voltage. High voltage is always present at the battery terminals. Never touch the battery terminals when performing monthly battery maintenance procedures. Failure to follow these directions may result in death or serious injury.

1. The water level in the flooded batteries should be checked monthly, or more frequently with heavy usage. The level should be in between the battery plates and the bottom of the fill well (see page 83). The battery plates should be visible when looking into the fill well. If not, use a flashlight. Add (distilled) water **only** after charging unless the water level is below the top of the battery plates. In this case, add just enough distilled water to cover the plates, charge then recheck the level.

NOTICE

Never charge batteries if plates are exposed above water level.

NOTICE

Battery acid from cleaning batteries can damage driveway or garage floor.

NOTE: For best battery life, add only distilled water.

2. Make sure the battery caps are firmly in place after maintenance and before washing. (See step 3)

3. Batteries should be kept clean and free of corrosion. Wash the tops and terminals of batteries with a solution of baking soda and water (1 cup baking soda per gallon of water) once per month. Review the instructions on pages 76-80.

NOTE: Do not allow the cleaning solution to enter the battery.

4. Be sure battery terminals are tight. If just cleaned, let terminals dry, and spray them with battery anti-corrosion spray.

WARNING

Improper handling of high voltage wiring, batteries, or control systems could result in serious injury or death by electric shock. Only qualified technicians should repair or access high voltage wiring, battery packs, and associated systems.

WARNING

If battery cable terminals are damaged or corroded, they should be replaced or cleaned as necessary. Failure to do so may cause them to overheat during operation, possibly leading to fire which may result in death or serious injury.

5. The battery hold down bars should be snug to keep batteries from moving while the vehicle is in motion, but not so tight as to crack or buckle the battery case. Make sure the lynch pin is in the proper position and locked.

6. Worn insulation, frayed cables, or damaged cable ends should be replaced immediately by a GEM factory-trained technician.

NOTE: After each use, the batteries should be charged. The batteries should never be left discharged.

BATTERY DISPOSAL

Lead-acid batteries are recyclable. Return whole scrap batteries to distributor, manufacturer or lead smelter for recycling. For neutralized spills, place residue in acid-resistant containers with absorbent material, sand or earth and dispose of in accordance with local, state and federal regulations for acid and lead compounds. Contact local and/or state environmental officials regarding disposal information. You can also contact Customer Service at 866-764-0616 for information.

BATTERY CARE DURING STORAGE

To allow for extended storage time, your GEM car has several features to enhance battery life.

A fully charged vehicle can be stored (with the ignition key in the 'OFF' position), for up to 10 days. It will lose some of its charge during this period.

When storing, or not using, your GEM car for an extended period of time, (two weeks or longer) it is recommended that you first check the water level of your batteries, unless equipped with maintenance free gel batteries, and leave the vehicle plugged in with the Main Disconnect Switch in the 'ON' position. The charger will monitor the state of charge of the batteries, and will initiate a charge cycle whenever the batteries fall to a pre-determined charge level, for up to 24 weeks.

NOTE: In the case that the GEM car can not be left plugged in for extended periods of time, the recommended method is to check the water level of flooded batteries, charge the car to 100% and then turn the MDS to the 'OFF' position. When storing your vehicle in this condition for 30 days or more, it is necessary that arrangements are made to have the vehicle recharged every 30 days while in storage.

To eliminate battery charge loss due to component current drain, or if the vehicle will be stored for more than 10 days, the car should be fully charged and the main disconnect switch must be turned 'OFF'. The main disconnect switch can be seen on page 39.

⚠ WARNING - HIGH VOLTAGE

The main disconnect switch will disable the vehicle by disconnecting the battery pack from the motor. It does not disable the battery pack. HIGH VOLTAGE will be present at the battery terminals.

HIGH BATTERY VOLTAGE IS ALWAYS PRESENT. DO NOT TOUCH THE BATTERY TERMINALS.

Failure to follow these directions may result in death or serious injury.

BRAKE FLUID LEVEL

1. Reservoir
2. Cap
3. Maximum Level Mark
4. Minimum Level Mark

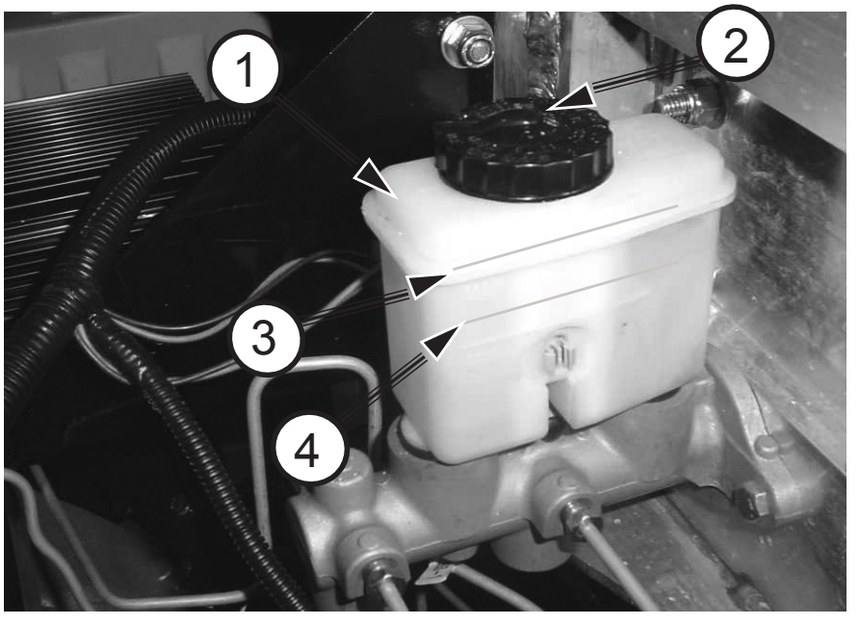


Figure 23 - Brake Fluid Reservoir

The brake fluid reservoir (Figure 23) is located under the hood, above and to the rear of the left front tire. The fluid level of your brake system is a very important safety component. It should be checked according to the Vehicle Maintenance Schedule, on Page 104, by observing the side of the reservoir and noting its level. The fluid level should be at the maximum level mark. If it approaches the minimum level mark, fill it with DOT3 brake fluid and see your dealer for service or call Customer Service immediately at 866.764.0616.

NOTICE: Brake fluid may cause damage to painted and finished surfaces. Use caution when refilling the brake fluid reservoir.

NOTE: The vehicle is equipped with a four-wheel hydraulic braking system.

⚠ WARNING
Use standard DOT3 brake fluid. Use of any other fluid may result in loss of braking ability, leading death or serious injury.

TIRES

Proper tire inflation pressure is essential to the safe and satisfactory operation of your vehicle. Tire inflation pressures are provided on your vehicle's VIN/Certification Label (See page 9, Figure 1).

Three primary areas are affected by improper tire pressure:

1. Safety

Under-inflation increases tire flexing and can result in tire failure. Over-inflation causes a tire to lose its ability to cushion shock. Objects on the road and potholes could cause tire damage that may result in tire failure. Unequal tire pressure can cause steering problems.

NOTICE
After inspecting or adjusting the tire pressure always reinstall the valve stem cap-if equipped. This will prevent moisture and dirt from entering the valve stem, which could damage the valve stem.

2. Range

Improper inflation pressures can cause uneven wear patterns to develop across the tire tread. These abnormal wear patterns will reduce tread life resulting in premature replacement. Under-inflation increases tire rolling-resistance, resulting in lower vehicle range.

3. Ride Comfort and Vehicle Stability

Proper tire inflation contributes to a comfortable ride. Over-inflation produces a jarring and uncomfortable ride. Both under-inflation and over-inflation affect the stability of the vehicle and can produce a feeling of sluggish response or over responsiveness. Replace valve stem caps after tire maintenance to prevent dirt from damaging valve stem or preventing the stem from closing properly.

4. Wear

Any accelerated wear of tires may be an indicator of improper alignment or poor driving habits. If uncertain, consult your GEM service provider.

WARNING

Improperly inflated tires are dangerous and can cause accidents.

- Overinflated or under inflated tires can affect vehicle handling and can fail suddenly, leading to an accident that may cause death or serious injury.
- Unequal tire pressures from one side of the vehicle to the other can cause the vehicle to drift to the right or left.

Always properly inflate all tires.

REPLACEMENT TIRES

The tires on your new vehicle provide a balance of many characteristics. They should be inspected regularly for wear and correct inflation pressure. GEM strongly recommends that you use tires equivalent to the originals in quality and performance when replacement is needed. Failure to use equivalent replacement tires may adversely affect the safety, handling, and ride of your vehicle. We recommend that you contact your dealer or Global Electric Motorcars Customer Service regarding any questions you may have on tire specifications or capability.

⚠ WARNING

- Do not use a tire size other than that specified on your vehicle's tire label.
- Improperly sized tires can cause vehicle components to wear out prematurely and may change your vehicle's ride, handling, and steering behavior. In addition, it may affect the accuracy of your speedometer/odometer. Using tires sized other than specified on your vehicle's tire label could cause you to lose control resulting in serious injury or death.
- Never use a tire smaller than the minimum tire size listed on your vehicle's tire label. Using a smaller tire could result in tire overload and failure.
- Failure to equip your vehicle with tires having adequate speed capability can result in sudden tire failure and loss of vehicle control.
- Overloading your tires is dangerous. Like under inflation, overloading can cause tire failure. Use tires of the recommended load capacity for your vehicle and never overload them. Failure to follow these directions may result in death or serious injury.

NOTE: The vehicle's tire information can be found on the VIN/Certification label (See page 9, Figure 1).

WARNING

Do not use a tire, wheel size or rating other than that specified for your vehicle. Some combinations of unapproved tires and wheels may change suspension dimensions and performance characteristics, resulting in changes to steering, handling, and braking of your vehicle. This can cause unpredictable handling and suspension failure. You could lose control and have an accident resulting in serious injury or death. Use only the tire and wheel sizes with load ratings approved for your vehicle.

TIRE CHANGING AND JACKING AND TIE-DOWN POINTS

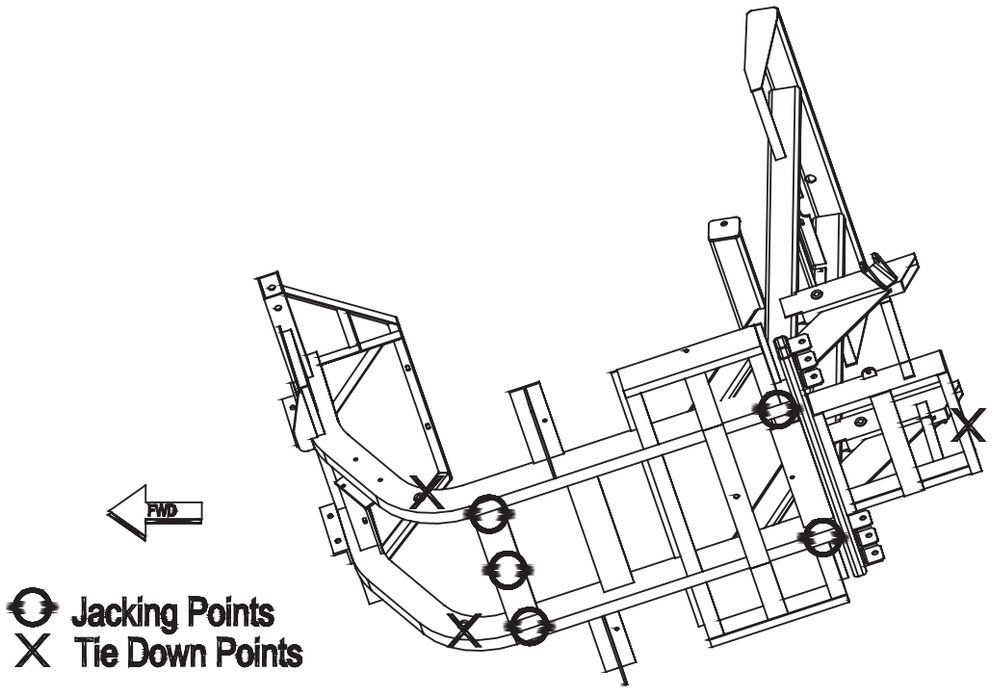


Figure 24 - Jacking and Tie Down Points

(X) Tie-down points for transporting your GEM car, see page 75 for transporting vehicle.

In the event of a flat tire, GEM recommends using the GEM dealer network or Customer Service to change it, because they have the proper equipment. Should you choose to change the tire yourself, you need to observe the following precautions:

- Park the vehicle on a firm level surface; avoiding icy or slippery areas.

- Set the parking brake and block both the front and rear of the tire diagonally opposite the jacking position. For example, if the right front tire is being changed, block the left rear wheel.
- Use a small floor style jack or low profile scissors jack only.
- Jack the vehicle only from the side of the vehicle, on the main frame rail, at the point where the tub or floor panel support and the main frame rail are welded (See page 97, Figure 24). Alternative locations include the rear frame rail and the center of the front cross member.

Tire Lug Nut Torque Specification:

65 ft-lbs, or 88 N-m 12” & 13” Steel Wheels
95 ft-lbs, or 128 N-m 12” & 14” Aluminum Wheels

WARNING

Getting under a jacked-up vehicle is dangerous and may result in death or serious injury. The vehicle could slip off the jack and fall on you. Never get any part of your body under a vehicle that is on a jack. Never start or run the motor when the vehicle is on a jack. If you need to get under the vehicle, make sure the vehicle is first located on a flat solid surface, and is supported securely by automotive jack stands or, take the vehicle to a service center where a technician can put it on a properly adjusted hoist.

CAUTION

Jacking at any location other than the proper jacking points may cause major vehicle body damage and/or personal or property damage.

FUSE ACCESS PANEL/FUSE BLOCK

The fuse block (Figure 25) is located inside the fuse access panel (Figure 26), which is on the lower dash. The ignition key opens the fuse access panel. To open, turn the key counterclockwise one quarter turn.



Figure 25 - Fuse Block



Figure 26 - Fuse Access Panel

A sticker is attached to the inside of the fuse access panel showing the function and amp rating of each fuse as shown in Figure 27. The 'Spare' and 'Heater Coil' fuses are used for accessories.

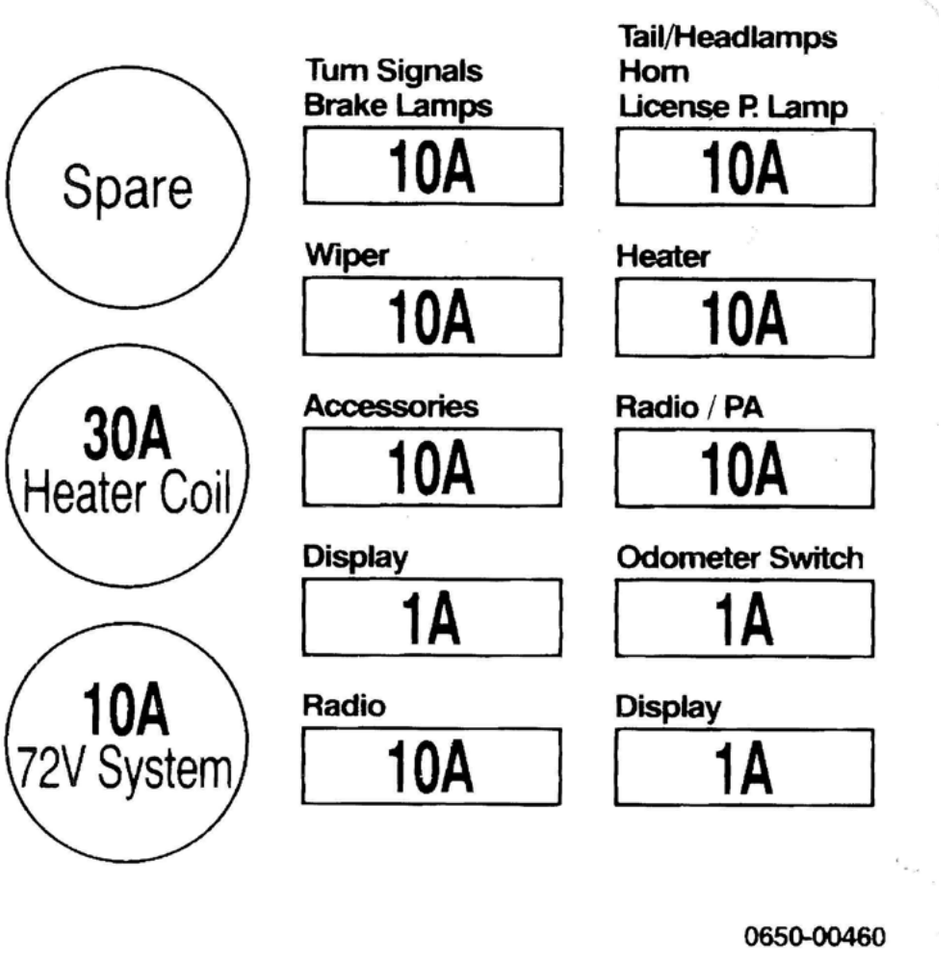


Figure 27 - Fuse Decal

KEY REPLACEMENT

To obtain an extra or replacement key for your vehicle please call Global Electric Motorcars Customer Service at 1.866.764.0616. Please have your key code and VIN ready. Please refer to page 9 for key numbers or refer to key numbers stamped on key.

CARE AND CLEANING

CLEANING THE WINDSHIELD AND SUNROOF

GEM recommends using *GEM Windshield Cleaner and Protectant* to remove normal dust and dirt, available at all GEM dealerships. A liquid household glass cleaner can also be used. Do not use abrasive cleaners on the windshield and sunroof, as they will cause scratches.

NOTICE
Be very careful when cleaning the acrylic windows (sunroof, side and rear windows) as they can be scratched or damaged. Do not use a cleaner with an abrasive, a combination cleaner and wax or any solvent that contains ethyl or methyl alcohol. Do not use products containing ammonia, soaps, or abrasives. Never use gasoline or cleaning solvent. These products scratch or destroy the surface of the windows. To remove oil, grease or road tar use isopropyl alcohol, then wash the windows with water. Dry gently with a soft cloth or chamois.

CLEANING THE SEATS

To clean the seats of your GEM car, use *GEM Foaming All Surface Cleaner* available at your local GEM car dealer. Rubbing seats with warm water and a clean, damp cloth will also remove dirt. Substances such as tar, asphalt, and other soils will stain if not removed quickly. Use a clean cloth and solvent type vinyl cleaner and then wash the area thoroughly with a damp cloth and mild liquid detergent. Finish by rinsing with cool water.

CLEANING THE INTERIOR

Use mild liquid detergent and warm water to clean the interior. Wipe using a cloth dampened with warm or cool water or remove detergent or deposits.

NOTICE
Do not spray the interior of your vehicle. Water contact with the dash panel or instrument panel could damage the electrical system.

CLEANING THE EXTERIOR

The best way to preserve your vehicle's finish is to wash the vehicle regularly. *GEM Fiberglass Plastic and Rubber Restorer* is available at local GEM car dealers. Mild liquid detergents (no strong soaps or chemical detergents), can also be used. Rinse promptly after cleaning. Dry the finish with a soft, clean chamois or towel to avoid surface scratches and water spotting.

NOTE: To avoid spotting, do not wash your vehicle in direct sunlight.

⚠ WARNING

Do not use volatile solvents for cleaning purposes. Many are potentially flammable, and if used in closed areas they may cause respiratory harm.

PROTECTION FROM THE ELEMENTS

Covering your vehicle is optional, however, prolonged exposure to UV light may deteriorate the exterior and interior finish. It is recommended to protect the vehicle with a G*EM Car Cover,* available at local dealerships.

MONTHLY VEHICLE MAINTENANCE

MONTHLY TASKS
1. Check all six (6) flooded batteries for proper water level. (Not necessary if vehicle is equipped with maintenance free gel batteries).
2. Check battery terminals for tight connections.
3. Check tires for correct air pressure and wear.
4. Check for proper operation of parking brake.
5. Check brake fluid reservoir for proper brake fluid level.
6. Check brake lines for leaks.
7. Check seat belts for proper operation.
8. Check headlights, horn, turn signals, windshield wiper and brake lights for proper operation.

Limited Warranty and Customer Service

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Limited Warranty and Customer Service

LIMITED WARRANTY COVERAGE PERIOD

Polaris Sales Inc. warrants from the date of delivery to the first consumer, that each GEM car sold as “NEW” and “UNUSED” and pre-delivered by an authorized GEM dealer, will be free from any defect in material and/or workmanship for a period of:

ONE (1) YEAR or 8,000 MILES; WHICHEVER OCCURS FIRST
NINETY (90) DAYS, for rental use owners. Mileage restriction may not apply to warranty on batteries in some states.

LIMITED MANUFACTURER’S WARRANTY

Polaris will repair or replace, as its option, all GEM parts found faulty in material and/or workmanship, under normal use, maintenance and service, with genuine GEM parts without charge for parts and labor, at any authorized GEM dealer during warranty coverage period. Tires are excluded from warranty as they are warranted by their respective manufacturers. Call 1.866.764.0616 for more details. All genuine GEM Accessories are warranted with respect to parts and labor against defect in materials and workmanship for a period of 90 days from the date of purchase to original retail purchaser.

ADDITIONAL CONDITIONS

Polaris Sales Inc. will warrant all parts provided under this warranty. All GEM car parts replaced under warranty become the property of Polaris and must be returned to the factory for inspection, on request. Your authorized GEM dealer will provide parts return service. Any other expenses incurred in obtaining warranty repairs, including transportation, are the responsibility of the purchaser, unless otherwise stated in this warranty.

Limited Warranty and Customer Service

NOTE: To qualify for warranty protection, the selling dealer must file the warranty registration information on the Internet site *GEM Connect* within ten days of purchase. If this is not on file, we can not honor your warranty claim.

Please refer to the New Vehicle Service Protection booklet included with this Owners Manual packet for complete details regarding the warranty coverage provided with your new GEM car. To obtain warranty service, you must contact Global Electric Motorcars at 1.866.764.0616 and make your vehicle available for inspection and repair during the warranty period. Your GEM car service provider should be able to provide service during normal business hours and within a reasonable time, depending upon workload and availability of necessary parts. Further information regarding warranty service may be obtained from:

Global Electric Motorcars
1301 39th St. N Suite 2
Fargo, North Dakota 58102

Customer Service Hours
7:30 a.m. - 5:30 p.m. Monday - Friday CST, 1.866.764.0616

Changes by the manufacturer in design or equipment made during the course of ownership shall not apply to any GEM car previously manufactured or purchased.

Limited Warranty and Customer Service

This limited warranty shall not apply to damage or repair costs caused by:

1) Failure to operate, maintain, and service, as specified in the GEM car Owner's Manual.
2) Abuse, misuse, neglect, accident, collision, or operation other than the specified design, use and speed.
3) Alteration or repair outside of factory specifications.
4) Use of components, including batteries, not specified in the applicable owner's manual or any damage avoidable with the proper use of specified GEM car components.
5) Owner should contact selling dealer or Customer Service for currently approved battery manufacturer and model information.
6) Fading, deterioration or weathering of seats, floor mats, composite parts or paint caused by ordinary wear and tear of exposure.

This limited warranty shall not apply to normal maintenance. This maintenance includes, but is not limited to, battery fluid replenishment, brake adjustment, brake fluid replenishment, and brake shoes. Consumables such as light bulbs, fuses, etc. are not covered.

Our dealers are independently owned and operated, and may sell products other than GEM cars. Therefore, you should understand that Polaris is not, and cannot be, responsible for the quality, suitability or safety of any non-genuine GEM car parts, accessories or design modifications, including labor, which may be sold and/or installed by a GEM dealer or anyone else, or any damage caused thereby.

THERE ARE NO OTHER EXPRESS WARRANTIES ON YOUR GEM CAR BEYOND THOSE SET FORTH HEREIN, AND NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS TO THE FULL EXTENT ALLOWED BY LAW. POLARIS AND ITS DEALERS SHALL NOT BE LIABLE FOR LOSS OF USE, INCONVENIENCE, LOST TIME, COMMERCIAL LOSS OR ANY INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES.

EXPORTED GEMS

In the case of GEM cars sold outside of the USA, see your selling dealer for warranty details. For further information concerning export vehicle service, please contact:

Global Electric Motorcars
1301 39th St. N Suite 2
Fargo, North Dakota 58102

Customer Service Hours
7:30 a.m. - 5:30 p.m. Monday - Friday CST, 1.866.764.0616

Limited Warranty and Customer Service

Global Electric Motorcars Business Hours
8:00 AM - 5:00 PM M-F CST
1.888.871.4367 Web Site: www.gemcar.com

Some states do not allow the exclusion or limitation of incidental, consequential or other damages, or limitation on the length of an implied warranty, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights. You may also have other rights, which vary from state to state.

NOTE: See your dealer to obtain a copy of a detailed limited warranty description.

Tire Warranty

Tires are warranted by their respective manufacturers. Please contact customer service at 1.866.764.0616 for more details.

CUSTOMER SERVICE

Prepare For Appointment

If you're having warranty work done, please be sure to have your Vehicle Identification Number (VIN) available along with all documents included with your warranty folder. All work to be performed may not be covered by the warranty. Discuss additional charges with the service provider. Keep a maintenance log of your vehicle's service history. This can often provide a clue to the current problem. There are pages provided at the back of this owner's manual for notes.

Prepare a List

Make a written list of your vehicle's problems or the specific work you want done. If you've had an accident, or work done that is not on your maintenance log, let the service provider know.

Customer Service Hours
7:30 a.m. - 5:30 p.m. Monday - Friday CST, 1.866.764.0616

CHANGE OF ADDRESS

Change of Address/2nd Owner Address

Please copy the form on page 113 and mail to Global Electric Motorcars at the address below, to keep records current.

Global Electric Motorcars
Warranty Department
1301 39th St. N Suite 2
Fargo, North Dakota 58102
1.866.764.0616

Contact Global Electric Motorcars Customer Service
at 866.764.0616 or e-mail service@gemcar.com for assistance.

CHANGE OF ADDRESS FORM/2ND OWNER ADDRESS FORM

|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

Vehicle Identification Number

(See page 9, Vehicle Identification and Specifications section)

_____

Last Name

_____

First Name

_____

Street Address

_____

City State Zip Code

_____

Phone #

_____

E-mail Address

TRANSFER OF LIMITED WARRANTY/SERVICE CONTRACT

Transfer of Factory Limited Warranty/Service Contract

Factory Limited Warranty/Service Contract may be transferred upon the sale of the Vehicle to another private party. The Factory Limited Warranty/Service Contract transfer must be made at the time of the Vehicle transfer. You must request the transfer in writing, to Royal Administration Services, Inc. and the Administrator must receive it within seven (7) days of the transfer. A fee of $25.00 must accompany the request to transfer, along with the following information: 1. Name of New Owner, 2. Address and Telephone Number, 3. Vehicle Odometer Statement, 4. Copy of Title showing transfer. The Factory Limited Warranty/Service Contract must be given to the new owner at the time the Factory Limited Warranty/Service Contract transfer is completed. Transfer of the Factory Limited Warranty/Service Contract does not include transfer of the 24-Hour Roadside Assistance Program.

Royal Administration Services, Inc.
51 Mill Street
Hanover, MA 02339
Phone: 1.888.813.8659 Fax: 781.261.2522

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Notes

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